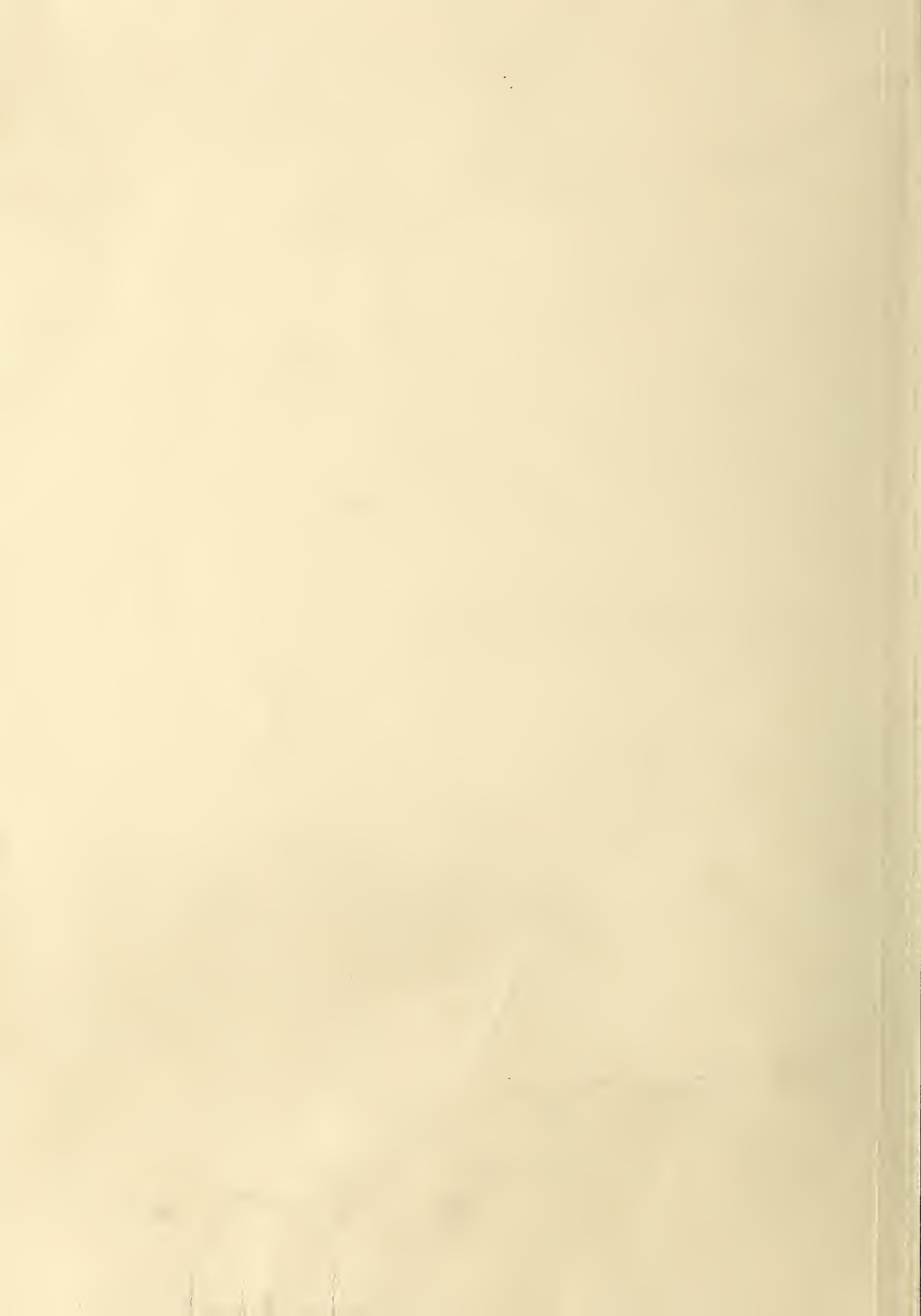


Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



Reserve
aTX551
.N887
1992

NUTRITION LABELING OF MEAT
AND POULTRY PRODUCTS:
CONSUMERS' OPINIONS

**United States
Department of
Agriculture**



National Agricultural Library

Contract Number
53-3A94-8-08

RTI Project Number
233U-4205-4 FR

Nutrition Labeling of Meat and Poultry Products: Consumers' Opinions

Final Report

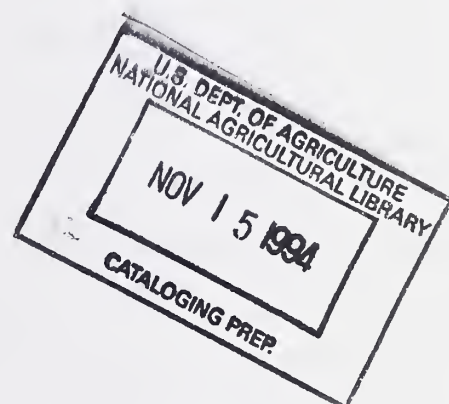
May 1992

Prepared for

Loren Lange
Deputy Director
Policy, Evaluation, and Planning Staff
Food Safety and Inspection Service
U.S. Department of Agriculture
Washington, DC 20250

Prepared by

Donald W. Anderson
Brian Calingaert
Center for Economics Research
Research Triangle Institute
Research Triangle Park, NC 27709





CONTENTS

Section	Page
Executive Summary	vii
1 Introduction	1-1
2 Methodology: Focus Groups	2-1
2.1 Focus Group Logistics	2-1
2.2 Focus Group Moderation	2-4
2.2.1 Introduction	2-4
2.2.2 Discussion—Current Use of Nutrition Labels	2-5
2.2.3 Discuss Label Content	2-5
2.2.4 Wrap-Up.....	2-6
3 Findings	3-1
3.1 The Relative Importance of Nutrition Content and Information	3-1
3.1.1 Results of Focus Groups with General Consumers	3-1
3.1.2 Results of Telephone Focus Group with Experts.....	3-5
3.1.3 Results of Focus Group with Low-Literacy Consumers.....	3-6
3.2 Frequency of Nutrition Label Use	3-6
3.2.1 Results of Focus Groups with General Consumers	3-6
3.2.2 Results of Telephone Focus Group with Experts.....	3-8
3.2.3 Results of Focus Group with Low-Literacy Consumers.....	3-9
3.3 Reasons for Nutrition Label Use	3-9
3.3.1 Results of Focus Groups with General Consumers	3-9
3.3.2 Results of Telephone Focus Group with Experts.....	3-11

CONTENTS

Section	Page
3.3.3 Results of Focus Group with Low-Literacy Consumers.....	3-13
3.4 Inferences Drawn from Presence or Absence of Labels.....	3-13
3.4.1 Results of Focus Groups with General Consumers	3-13
3.4.2 Results of Telephone Focus Group with Experts.....	3-16
3.4.3 Results of Focus Group with Low-Literacy Consumers.....	3-17
3.5 Nutrition Information at Different Stages of Preparation.....	3-17
3.5.1 Results of Focus Groups with General Consumers	3-17
3.5.2 Results of Telephone Focus Group with Experts.....	3-18
3.5.3 Results of Focus Group with Low-Literacy Consumers.....	3-18
3.6 Uniform Descriptors	3-19
3.6.1 Results of Focus Groups with General Consumers	3-19
3.6.2 Results of Telephone Focus Group with Experts.....	3-21
3.6.3 Low-Literacy Consumers.....	3-22
4 Conclusion.....	4-1
References	R-1
Appendix A: Participant Screening Document	
Appendix B: Resumes of Expert Panel Participants	
Appendix C: Moderator's Guide	
Appendix D: Pre-Session Questionnaire	
Appendix E: Visual Aids	
Appendix F: Pre-Session Data Base	

FIGURES

Number	Page
2-1 Gender Breakdown of Atlanta and St. Louis Focus Groups (n = 59)	2-2
3-1 Ranked Factors of Grocery Items (1=highest, 8=lowest)	3-3
3-2 Ranked Statistics of Grocery Items.....	3-4
3-3 Number of Times Viewed Nutrition Label in Last 30 Days	3-7
3-4 Last Time Viewed Nutrition Label on Meat/Poultry Product.....	3-8
3-5 Frequency of Nutrition Labels Read	3-8
3-6 Reason for Last Look at Meat/Poultry Nutrition Label	3-11
3-7 Reasons for Using Meat/Poultry Nutrition Labels in Last 30 Days	3-12
3-8 Meat/Poultry Labelling Awareness.....	3-14
3-9 Perceptions of Products Without Nutrition Labels	3-15
3-10 Fat Content Rankings of Uniform Descriptions	3-20

EXECUTIVE SUMMARY

The Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture (USDA) is responsible for inspecting all meat and poultry products shipped in interstate commerce and assuring consumers that meat and poultry products are wholesome, not adulterated, and are properly marked, labeled, and packaged. On April 2, 1991, FSIS published an Advance Notice of Proposed Rulemaking (ANPR) (USDA, 1991b) related to nutrition labeling of meat and poultry products to solicit comments, information, data, and recommendations from consumers, industry, public health officials, and other interested parties. On November 27, 1991, FSIS then published a Proposed Rule (USDA, 1991a) that would permit voluntary nutrition labeling on single-ingredient, raw meat and poultry products and require nutrition labeling for all other meat and poultry products except those that are used for further processing. Again, FSIS solicited comments from all interested parties.

To develop and implement nutrition labeling regulations, FSIS needs a better understanding of consumers' use of nutrition labels on meat and poultry products. This report summarizes the principal methodology and findings of a study conducted by Research Triangle Institute (RTI). The objective of the study was to obtain information on consumer attitudes, viewpoints, and perceptions of nutrition information on food products and to assess the implications for potential nutrition information policies. The following six questions represent the main topical areas:

1. What is the relative importance of nutrition content and information?
2. How frequently do consumers look at nutrition labels while grocery shopping?
3. Why do consumers read nutrition labels?
4. What inferences do consumers draw from the presence or absence of labels?
5. How do consumers feel about nutrition information being provided at different stages of preparation?
6. Do consumers use/understand uniform descriptors?

The conclusions presented in this report are based on an analysis of qualitative and quantitative data RTI collected in six focus groups of general consumers who make food buying decisions for their households, one telephone focus group of literacy, nutrition, and communication experts, and one focus group of low-literacy consumers. We caution that focus groups do not provide valid statistical results that can be generalized to a target population. Nonetheless, our findings suggest the following conclusions:

- General consumers and low-literacy consumers are very homogeneous in what is important to them when making purchase decisions. Most rank nutrition content or information among their top three factors in making purchasing decisions.
- Reported label use was quite high for general consumers. Almost 90 percent say that they have read a nutrition label in the past month, and of those, 52 percent have read four or more labels in the past month. Low-literacy consumers report lower label use.
- Expert opinion is that consumers' self-reported label use often tends to over-report actual label use.
- Over 60 percent of general consumers say they either "usually" or "always" read nutrition labels when buying a product for the first time; less than 2 percent say they never read labels when buying a product for the first time.
- Consumers also read nutrition labels to make comparisons between two brands.
- About 50 percent of all general consumers draw inferences from products without nutrition labels. This trend seems to hold for low-literacy consumers as well. Many consumers are suspicious of producers who don't provide nutrition information on their products.
- Consumers prefer products with labels, but they are not always willing to pay extra for the label. This tendency is particularly true among low-literacy consumers.
- Most general consumers prefer nutrition information about a product "as packaged." Low-literacy consumers, on the other hand, want the information about the product to be provided "as prepared."
- Consumers like the concept of uniform descriptors, they are potentially useful but are often confused by their definitions. Descriptors are particularly important for low-literacy consumers because they are less complicated and less confusing than nutrition labels.

SECTION 1

INTRODUCTION

The Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture (USDA) is responsible for inspecting all meat and poultry products shipped in interstate commerce and assuring consumers that meat and poultry products are wholesome, not adulterated, and are properly marked, labeled, and packaged. On April 2, 1991, FSIS published an Advance Notice of Proposed Rulemaking (ANPR) (USDA, 1991b) related to nutrition labeling of meat and poultry products to solicit comments, information, data, and recommendations from consumers, industry, public health officials, and other interested parties. On November 27, 1991, FSIS then published a Proposed Rule (USDA, 1991a) that would *permit* voluntary nutrition labeling on single-ingredient, raw meat and poultry products and *require* nutrition labeling for all other meat and poultry products except those that are used for further processing. Again, FSIS solicited comments from all interested parties.

To develop and implement nutrition labeling regulations, FSIS needs a better understanding of consumers' use of nutrition labels on meat and poultry products. FSIS also wants an assessment of the merits of conducting a larger, national survey on the topic.

To develop the required information, FSIS contracted with RTI to conduct focus groups of consumers and experts in consumer decision-making. Focus groups are an excellent way to obtain information on consumer attitudes and actions when direct observation is impractical for various reasons. The purpose of the focus groups was to explore a number of specific questions for which FSIS wanted answers:

- How important is nutrition labeling to meat and poultry product consumers relative to other considerations?
- How frequently do consumers read nutrition labels on food packages and on meat and poultry products in particular?
- Why do consumers read nutrition labels on meat and poultry products?
- How do consumers use information from nutrition labels?
- Do consumers draw inferences about how nutritious a food is based on the mere presence or absence of a nutrition label?
- Would consumers of fresh meat and poultry products prefer nutrition information for products "as packaged" or "as prepared"?
- Would consumers of meat and poultry products like uniform descriptors specific to those products?

- How, if at all, are the answers to these questions “different” for meat and poultry consumers with relatively (to the general population) little ability to receive and process printed information?

SECTION 2

METHODOLOGY: FOCUS GROUPS

Market researchers commonly use qualitative research methods to learn about consumers' perceptions of various products or services. Qualitative research is characterized by the absence of empirical measurements and a focus on subjective evaluations. Of the different qualitative research methods, focus groups are the most frequently used method (Greenbaum, 1988).

Focus groups are a technique in which a trained moderator leads a small number of participants (usually eight to ten), who are representatives of a target audience, through discussion on certain topics. The discussion is open-ended (respondents don't have to choose between a pre-determined set of responses) and the participants are allowed to raise issues, express their feelings, and expand on each other's ideas. Generally the discussion is informal and the participants not only interact directly with the moderator but with each other as well. This relaxed, open-ended approach results in unique insight into the participants' behavior through responses expressed in the participants' own language, often yielding descriptive statements as to why subjects respond as they do (Shepherd et al., 1989). The basic philosophy behind focus groups is that the dynamics of the group process will result in generating more useful information, on a cost-efficient basis, than would otherwise be available (Greenbaum, 1988).

Consumer focus groups can provide insight into consumer behavior that cannot otherwise be garnered through a survey. While surveys can give extensive data on how consumers behave, they are less useful in providing insight on why consumers behave as they do. However, unlike a survey of a large sample of consumers, focus groups represent much too small a sample to justify generalizing the results of statistical analysis to target populations.

2.1 FOCUS GROUP LOGISTICS

RTI conducted six focus groups of general consumers, three in each of the two cities—St. Louis, Missouri and Atlanta, Georgia. These six focus groups were conducted in specially designed rooms at independent market research companies. Each room contained a conference table around which the participants were seated facing the moderator. A one way mirror at one end of each room allowed video taping of the sessions. Each of the six focus groups was also recorded on audio tape.

The market research companies recruited the focus group participants from the general population of the cities where the groups were conducted. We instructed the companies not to

place restrictions on participant income or education levels. A screener (Appendix A) was used to determine eligibility of participants. The screener limited participants to individuals 18 and over who had not participated in a focus group in the past six months and who were the primary grocery shopper for themselves or their household. We also gave instructions that we wanted at least two males included in each group. Figure 2-1 shows demographic data on the gender of the focus group participants. Seventeen percent of the Atlanta participants were male while 23% of the St. Louis participants were male. The three groups in Atlanta included a total of 29 participants, and the groups in St. Louis included 30 participants.

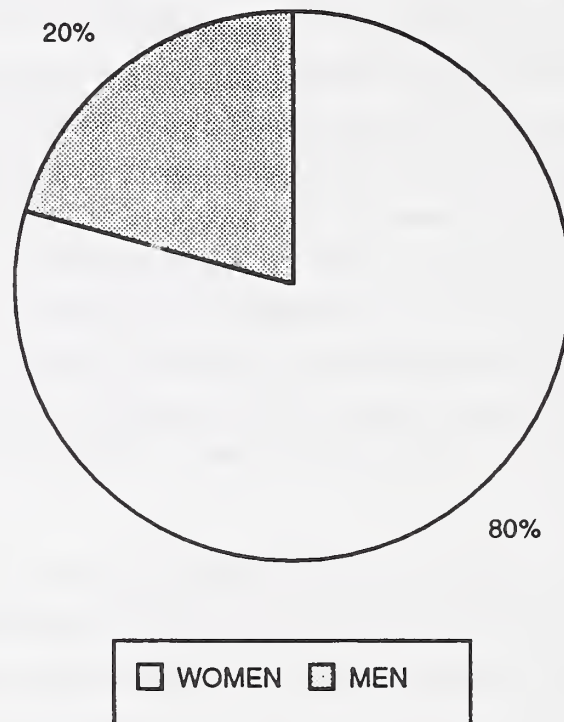


Figure 2-1. Gender Breakdown of Atlanta and St. Louis Focus Groups (n=59)

RTI conducted the three Atlanta focus groups on Wednesday, December 18, 1991. We held the first group in the morning at 10:00 A.M. and then held consecutive groups in the evening, starting at 6:00 P.M. and 8:00 P.M. Each focus group lasted about one and a half hours.

RTI conducted the St. Louis groups on Friday and Saturday, January 17 and 18, almost exactly a month after the Atlanta groups. The first two groups were held Friday, starting at 10:00 A.M. and 6:00 P.M. The final group was held Saturday at 10:00 A.M.

Following these six focus groups, discussions were held between the FSIS contracting officer's technical representative (COTR) and the RTI project leader. We concluded that low-literacy, poorly educated consumers were not necessarily represented by the six completed focus groups. To address this group's use of nutrition labels, we decided that we should conduct a telephone focus group of literacy, nutrition, and communication experts. The purpose of this focus group was twofold: to solicit expert opinion on how low-literacy, poorly educated consumers use food labels and to determine the best method to directly solicit this same information from consumers falling into this category.

RTI conducted the telephone focus group of nutrition, communication, and literacy experts on March 16, 1992, at 1:00 P.M. We selected the panel members through a comprehensive literature search as well as through recommendations from various academicians. The panel included James R. Bettman, Constance G. Geiger, Susan G. Hadden, Susan A. Nitzke, J. Edward Russo, and Ellen Schuster (vitaes for these six individuals are included in Appendix B). This focus group was conducted through a conference call set up by Conference Call USA (CCUSA), a company specializing in organizing such calls. At 1:00 P.M. EST, CCUSA connected the phone lines of the six participants, from various parts of the country, with the RTI moderator in Research Triangle Park, North Carolina. We made an audio tape of the proceedings.

During the focus group discussion Dr. Russo mentioned that he had previously led focus groups of low-literacy, low-income level consumers and had run into difficulties. He thought that the participants, when talking with him, had tried to conform to social norms. He did not feel that the information he gathered from the low-literacy groups was accurately reflective of their behavior. He felt that their descriptions of their behavior differed from their actual behavior.

Ms. Schuster countered that she had recently completed some focus groups with low-literacy, low-income level consumers and felt that she obtained valuable information. She said the key to such focus groups is using a moderator who is already trusted by the group or at least comes from the same culture as the group. She suggested that a good way to set up such a focus group is through community nutrition education programs. She recommended the Expanded Food and Nutrition Education Program (EFNEP).

Based on Dr. Russo's experience and Ms. Schuster's advice we decided that a focus group of low-literacy individuals would be constructive, but we would need a moderator experienced in communicating with low-literacy individuals. RTI identified such an individual,

a local EFNEP employee with substantial experience working with low-literacy individuals, and contracted her to organize and lead a focus group of low-literacy individuals.

On May 7, 1992, we conducted a focus group of low-literacy individuals in Raleigh, North Carolina. The group consisted of 12 members of a graduate equivalence degree (GED) study group called Mother Read. Ten out of the 12 members of this group were mothers and all 12 were high school dropouts. Their average reading comprehension level was approximately sixth grade. Although we did not ask them about their family income level, we safely assumed that most, if not all, were from low-income families. This group was held at a local church; the facilities were not conducive to video taping, but we made an audio tape of the session. The focus group started at 11:00 A.M. and lasted about an hour.

2.2 FOCUS GROUP MODERATION

RTI staff members served as moderators for all focus groups except the low-literacy focus group. RTI designed a moderator's guide (provided in Appendix C) under supervision of the FSIS COTR that served to outline the planned flow of the discussion. It identified the topics that the moderator planned to cover and guided him in how to allocate time among the topics. The moderator's guide included the four sections described in the sections below.

2.2.1 Introduction

The first 20 minutes of the focus group session with general consumers were spent establishing the tone of the session and providing background information to the participants. The moderator identified RTI and who we represent. He told the participants why they were chosen to be included in the group and how the discussion session would work. The moderator told participants he wanted to hear their views and opinions—that there were no right or wrong answers. He encouraged participants to speak up if they disagree and to talk to others in the group, not just to him. The participants were reminded that a one-way mirror was at the end of the room and that the session was being video and audio taped. Then the moderator described the meat and poultry products we wanted to discuss.

Group members were given a questionnaire about nutrition labels to complete. We provide a copy of the questionnaire in Appendix D. We administered the questionnaire prior to the discussion session because we wanted to see their current knowledge about food labels and we felt that their knowledge might change over the course of the discussion. We also wanted to know their answers to the questions so that during the discussion session we could ask the participants to explain the theory behind their answers.

Finally, the moderator asked participants to introduce themselves and to give a short description of their household shopping and meal preparation habits.

2.2.2 Discussion—Current Use of Nutrition Labels

During the next 40 minutes of the session the moderator discussed the following four topics with the participants:

- What is the relative importance of nutrition content and information?
- How frequently do you look at nutrition labels while grocery shopping?
- Why do you read nutrition labels?
- What inferences do you draw from the presence or absence of labels?

The session began with the moderator initiating discussion by questioning individuals about the first topic—What is the relative importance of nutrition content and information? At first he directed questions at specific individuals. As the session progressed the participants “warmed up” to the conversation and responded without being directly prompted. The moderator did continue to address questions to certain individuals if he felt they were not participating in the discussion. Each of the four topics was discussed for about 10 minutes.

While participants were introducing themselves (see Section 2.2.1), an assistant to the moderator tabulated results of the questionnaires that the participants filled out. Several of these results pertained to topics addressed in the discussion of consumer’s use of nutrition labels. As the tabulations were completed the moderator was able to inform the group of the results. This was successful in prompting further discussion. During the focus group, we showed visual aids (e.g., pictures of labels, nutrition panels, descriptors) periodically on an overhead projector. Appendix E provides copies of the overheads.

2.2.3 Discuss Label Content

Over the course of the next 30 minutes the group discussed two more topics:

- nutrition information at different stages of preparation and
- the clarity and usefulness of uniform descriptors

The moderator showed the group examples of nutrition labels displaying information at different stages of preparation as well as examples of uniform descriptors. This part was followed by approximately 15 minutes of discussion on each topic.

2.2.4 Wrap-Up

The focus groups concluded with approximately five minutes of wrap-up. The moderator opened discussion to any additional questions or comments that the participants might have. He then thanked them for participating, and the focus group facilitator compensated each participant with an incentive payment.

SECTION 3

FINDINGS

In this section we summarize our findings about consumer attitudes, viewpoints, and perceptions of nutrition information on food products of the meat and poultry industry. We base our findings on three sources:

- data from the questionnaire completed by participants during the focus groups (included in Appendix F),
- insights and ideas presented during the six general consumer focus groups and the one low-literacy consumer focus group, and
- ideas expressed during the telephone focus group of literacy, communication, and nutrition experts.

As explained previously, empirical data generated from analysis of focus groups are not necessarily statistically representative of the target population. Therefore, the findings from our focus groups do not necessarily reflect the attitudes and opinions of the general population of consumers. Nevertheless, focus groups do generate useful information. In the following sections we present the qualitative and quantitative information gathered during our focus groups.

The discussion of our findings follows the topics in the same order as they were presented by the moderator and discussed by the groups. For each topic we first discuss the findings from the six focus groups of general consumers. We then discuss the findings from the telephone focus group of experts. Each section concludes with a discussion of the findings from our low-literacy focus group.

3.1 THE RELATIVE IMPORTANCE OF NUTRITION CONTENT AND INFORMATION

3.1.1 Results of Focus Groups with General Consumers

The questionnaire administered to each member of the general consumer focus groups asked them to rank the following eight factors according to level of importance when selecting any type of food at the grocery store:

- brand recognition
- ease of preparation
- nutrition content
- nutrition information provided
- packaging

- price
- recommendation
- taste

Figures 3-1 and 3-2 present results of this activity. Figure 3-1 shows that taste, price, and nutrition content are clearly the three most important factors in selecting a grocery item. Thirty-six percent, 29 percent, and 13 percent of the respondents rank taste, price, and nutrition content, respectively, as the top factor in deciding on a grocery product. Examining the factors respondents ranked either first, second, or third most frequently, again taste, price, and nutrition content are the top three factors. Sixty-five percent, 64 percent, and 13 percent of the respondents rank taste, price, and nutrition content, respectively, as either the first, second, or third most important factor in deciding on a grocery product.

The next most important factors in selecting a grocery item are brand recognition and nutrition information. Nine percent of the respondents rank brand recognition as the most important factor in selecting a grocery item, while 7 percent say nutrition information is the most important factor. However, more respondents rank nutrition information as one of their top three factors rather than brand recognition. Thirty-five percent of the respondents rank nutrition information either first, second, or third, while only 25 percent rank brand recognition in the top three. We noted that the respondents' rank of nutrition content is positively correlated with their rank of nutrition information, with a coefficient of correlation of 0.58, which means that consumers who indicated that nutrition content is important generally also indicated that nutrition labeling is important. We expect this result if respondents obtain their product nutrition information from the product labels.

Figure 3-2 compares the means, medians, and modes of the rankings. All three descriptive statistics again show that taste, price, and nutrition content are the most important factors in selecting a grocery item. Remember that the factors were ranked in order of importance from one to eight, with one indicating the most important factor and eight the least important factor. Figure 3-2 indicates that taste, with a mean of three, a median of two, and a mode of one, is clearly the most important factor in selecting a grocery item. The mean and median for nutrition information are both approximately four, and the mode is six.

During the focus groups the participants also discussed the relative importance of nutrition content and information. The most common sentiment, expressed more frequently than all other responses combined, was "I very carefully read labels for health information." Other comments made by the participants included the following:

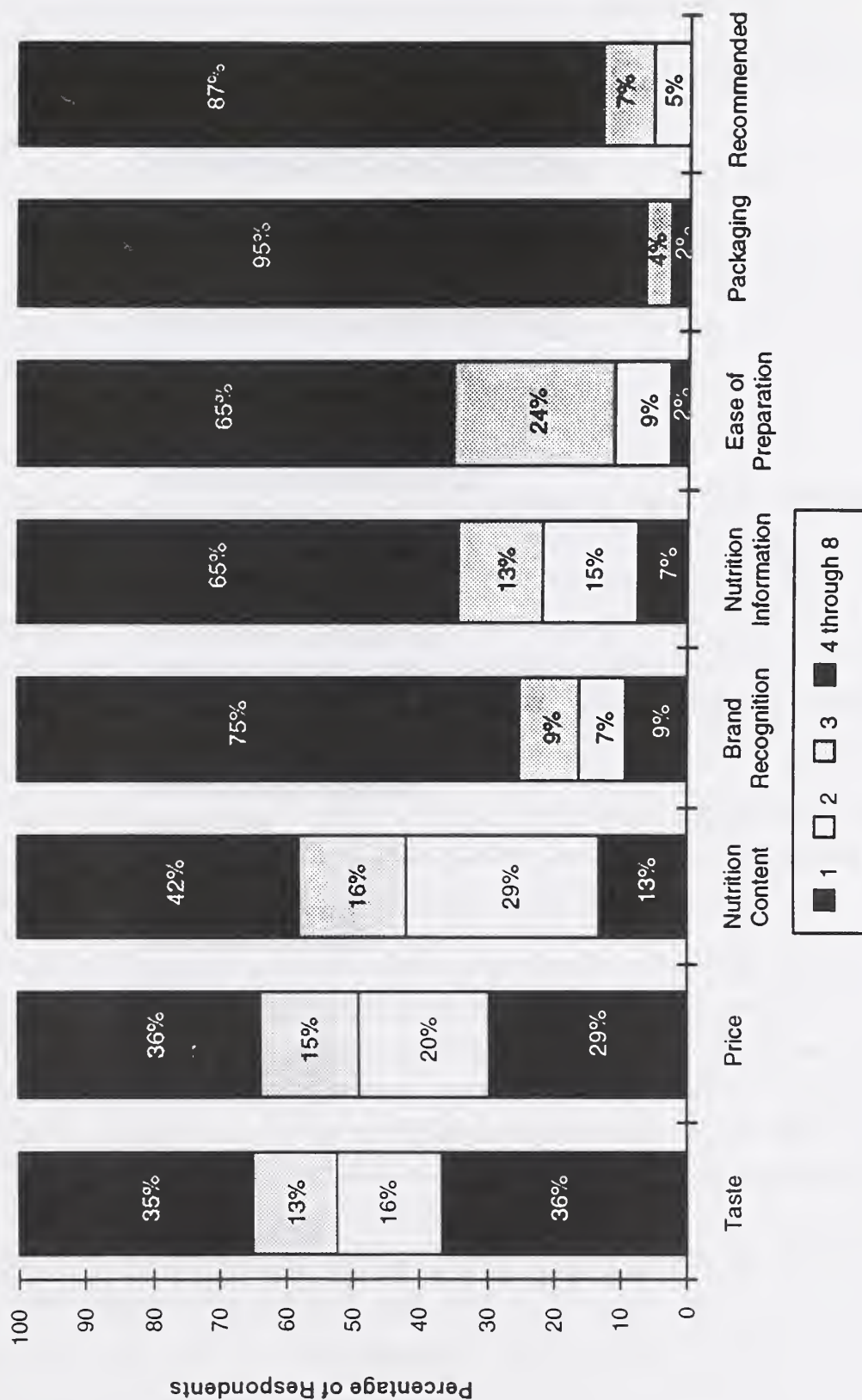
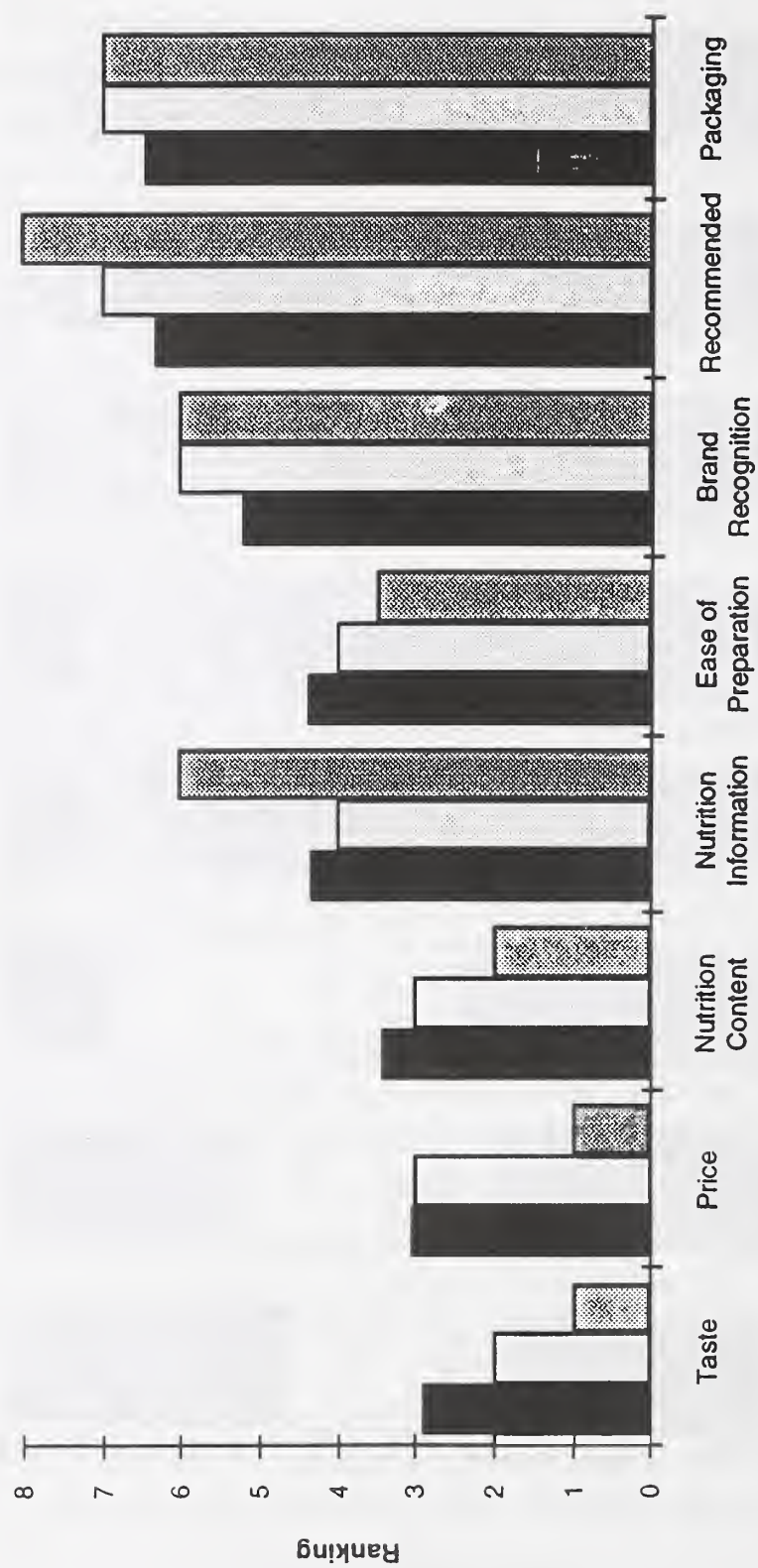


Figure 3-1. Ranked Factors of Grocery Items (1 = highest, 8 = lowest)



Attributes



- “The print is too small. Even if you understood it, you couldn’t read it.”
- “I look at brands first and don’t read the labels. I trust certain brands.”
- “I gave up. They talk out of both sides of their mouth. It’s all nonsense.”
- “It never occurred to me to look at a label for nutrition.”
- “I don’t look at fat or sodium or whatever. If I like it, I’m gonna eat it.”

These comments are illustrative of the fact that consumers seemed to find *nutrition content and information* either very important or not important at all. Although reasons for not reading labels varied greatly, the majority of respondents said that they do indeed look at the labels for information.

3.1.2 Results of Telephone Focus Group with Experts

Dr. Geiger, a nutrition and food scientist, said that she conducted field studies of consumers, examining for education level, and found them to be very homogeneous in what is important to them when making purchase decisions. Brand, price, and nutrition information completeness, in that order, are the most important factors. Her studies found that consumers have a very strong positive preference for more nutrition information. In other words, all other things held constant, consumers preferred a product label with more nutrition information over a product with less information.

Dr. Nitzke, a nutritional scientist with experience in developing nutritional education methods and materials for low-literacy adults, said that low-literacy individuals look more at health claims and uniform descriptors than the nutritional panels.

Dr. Russo, an experimental psychologist, said that his studies find that consumers place more emphasis on brand name and less emphasis on nutrition. He stressed that by nutrition he meant “things to avoid,” negative ingredients (e.g., sugar, salt) not the four basic food groups or positive ingredients. A study he conducted on cereals found that labeling of positive nutrients has much less effect on consumers than labeling of negative nutrients. Dr. Russo did say that he found that low-literacy, low-education level groups have not shifted their concentration to negative elements as quickly as have other consumers. In other words the low-education level consumers’ interest is shifting from the four basic food groups to negative ingredients more slowly than it has for other consumers.

3.1.3 Results of Focus Group with Low-Literacy Consumers

The low-literacy focus group did not fill out the questionnaire that the general consumers completed. The group members' reading comprehension levels were not sufficient to understand some of the questions and, because this was a focus group not a survey, we felt more information would be gained through conducting an informal discussion rather than trying to orally administer the questionnaire.

From the discussion we learned that price and taste are the most important qualities in making a purchase decision for the low-literacy individuals, but the majority expressed concern with nutrition content as well. In contrast to some of the general consumer focus group participants, none of the low-literacy participants said that they read labels very carefully for health information, although several did say they periodically look at labels. Almost all of the other comments mentioned by the general consumer focus groups were echoed virtually word for word by the low-literacy group.

3.2 FREQUENCY OF NUTRITION LABEL USE

3.2.1 Results of Focus Groups with General Consumers

The questionnaire that the members of the general consumer focus groups answered contained several questions pertaining to the frequency with which they look at nutrition labels while grocery shopping. Figure 3-3 shows how participants responded to the question, "How many times in the last 30 days have you looked for nutrition labels on food of any kind while shopping at the grocery store?" Eighty-eight percent marked that they had looked at labels at least twice and 52 percent of the respondents indicated that they had viewed nutrition labels four or more times.

We tested the correlation between consumers who said they had looked at nutrition labels on food of any kind more than three times in the past month and consumers who had ranked nutrition information as one of the three most important factors in purchasing decisions. We found a coefficient of correlation of 0.30. This correlation indicates, as expected, that consumers who weigh nutrition information heavily in purchase decisions tend to look at labels more frequently.

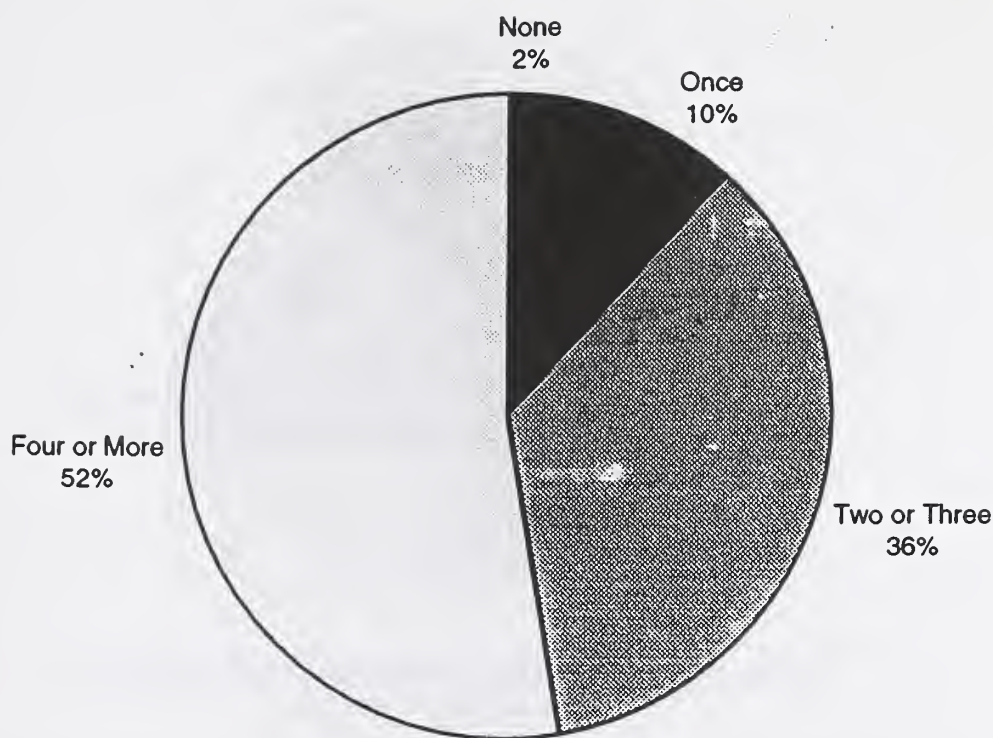


Figure 3-3. Number of Times Viewed Nutrition Label in Last 30 Days

During the focus group discussion several participants commented that they look at nutrition labels “nearly every time or every time.” Other, less frequently expressed comments included:

- “I look, but not very often.”
- “Occasionally.”
- “When I have time.”

When asked, “When is the last time you examined a nutrition label on a meat or poultry product?,” 51 percent of the respondents said that they had read a meat or poultry product label in the past week, while 88 percent had read a nutrition label at least once in the past month. Figure 3-4 presents these results.

The questionnaire also asked if participants read the nutrition label when deciding to buy an item for the first time. We present the results from this question in Figure 3-5. Twenty-five percent of the respondents *always* read nutrition labels when purchasing a grocery item for the

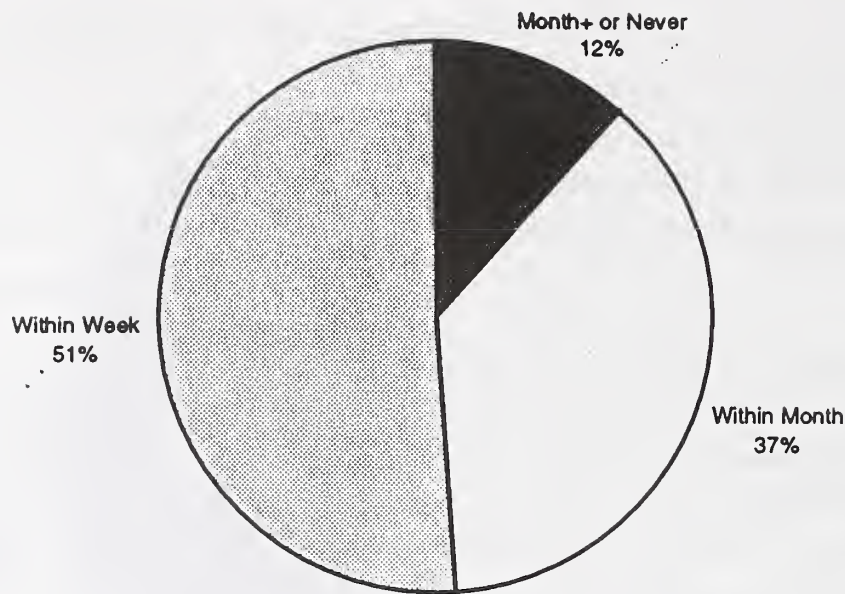


Figure 3-4. Last Time Viewed Nutrition Label on Meat/Poultry Product

first time, while 62 percent said they either usually or always read the labels the first time they buy a product. Thirty-six percent indicated that they sometimes look at the label for the first purchase. Only 2 percent said that they never look at the label the first time they purchase a product.

3.2.2 Results of Telephone Focus Group with Experts

The members of the telephone focus group did not have much to contribute on this topic. Dr. Russo did say that his field studies have shown that a large discrepancy exists between people's descriptions of their behavior compared with their actual behavior. He said, "[there is] enormous distortion, over-reporting, of socially desirable behavior with respect to nutrition and its role in food purchases." In his study he put large posters with nutrition information in the aisles of grocery stores and unobtrusively observed shoppers' behavior. He said that the shoppers avoided the posters like "dead babies." Only one percent of the shoppers paid attention to the posters. This percentage was far less than consumer self-reports had led him to expect.

Other members of the expert focus group agreed with Dr. Russo's theory, which suggests that we should probably be cautious in interpreting the findings from our consumer focus groups. Group members may well have overstated their use of nutrition labels to make their shopping behavior appear to conform to socially desirable behavior.

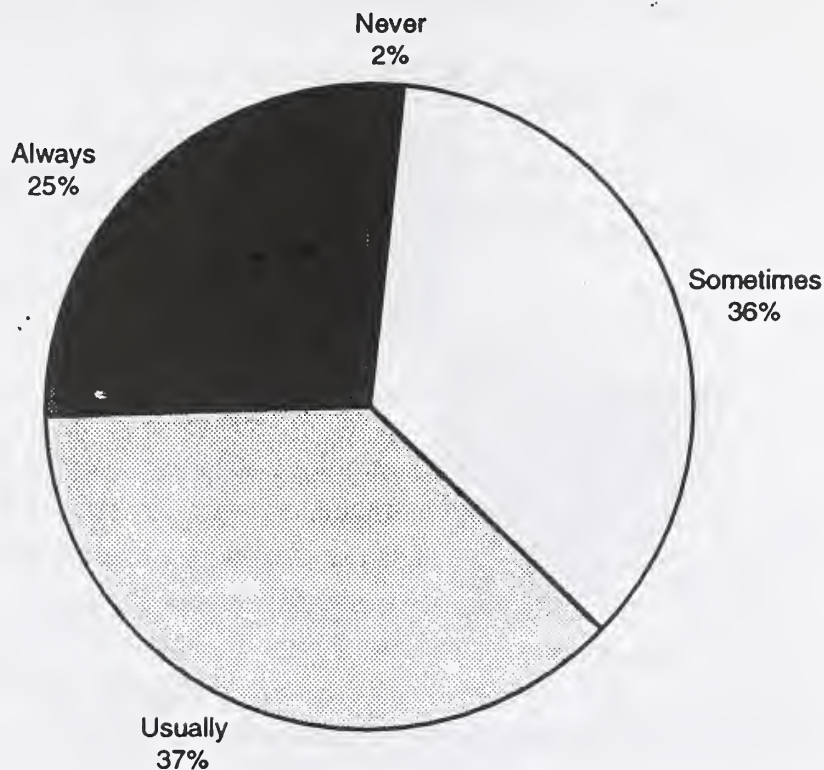


Figure 3-5. Frequency of Nutrition Labels Read when Buying Product for First Time

3.2.3 Results of Focus Group with Low-Literacy Consumers

Apparently members of the low-literacy focus group read nutrition labels less frequently than the members of the general consumer focus groups. Although one member said that she always reads labels every time she shops, and another said that she reads labels a lot, most said they never read nutrition labels. Price and brand name often seemed to be their only concern. One participant said that she didn't look at labels; she used commercials to pick name brands.

3.3 REASONS FOR NUTRITION LABEL USE

3.3.1 Results of Focus Groups with General Consumers

The questionnaire completed by the general consumers focus groups contained the question, "How did you use the information the last time you looked at a nutrition label on a meat or poultry product?" The participants were asked to choose one of the following five options as their answer:

- to help me decide how to prepare a balanced meal with meat and poultry along with other foods like fruits and vegetables, dairy products, grains and cereals;
- to help me decide what kind of meat or poultry product to buy (e.g., beef, chicken, turkey, or pork);
- to help me decide what type of a specific kind of meat or poultry product to buy (e.g., whether to purchase ground beef, steak, roast beef, or beef franks, once a decision has been made to buy "beef");
- to help me decide what brand of franks or what brand of bacon to buy once a decision has been made to buy "franks" or "bacon";
- other reasons.

Figure 3-6 shows that the participants were very evenly distributed among four of the options for how they used the information *the last time they looked at a nutrition label*. Twenty-six percent of the respondents had last examined a label to make a choice between brands, 25 percent had used a label to decide the kind of meat or poultry product to buy, 25 percent had examined labels for other reasons, and 22 percent used labels to decide the specific kind of preparation of meat or poultry product to buy. Just 2 percent of the respondents gave *preparing a balanced meal* as the reason for last looking at a meat or poultry product nutrition label.

Figure 3-7 summarizes the responses to a series of questions asking whether, *in the past 30 days*, the participants used nutrition labels for the purpose of any of the first four options from the previous question. Of the people that read nutrition labels on meat and poultry products in the last 30 days, most (73 percent) used nutrition labels to compare brands. Over half used nutrition labels to compare types of meat (59 percent) or types of cuts/processing (57 percent). And, although somewhat surprising after viewing Figure 3-6, 41 percent of the respondents that read nutrition labels in the past 30 days said that they had used nutrition labels to help plan a balanced meal. This difference probably reflects the fact that, although planning a balanced meal is not the primary reason for looking at labels, consumers still find it to be a secondary reason.

During the discussion participants expressed a variety of other reasons for examining nutrition labels. Health concerns seemed to be a recurring theme in most of these reasons. The frequently stated reasons included the following:

- "It's a medical necessity."
- "To prevent medical problems down the road."
- "I look for nutrition content."

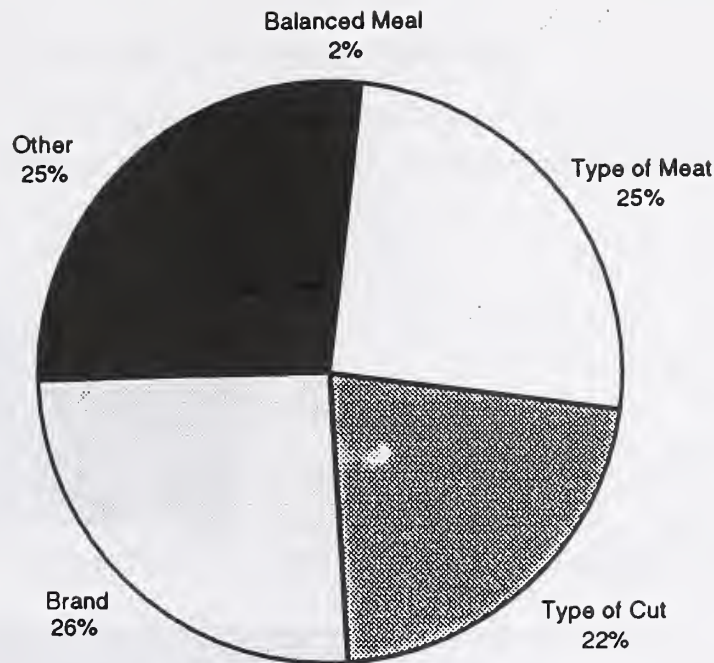


Figure 3-6. Reason for Last Look at Meat/Poultry Nutrition Label

- “To avoid calories.”
- “I glance at them for salt and sugar, . . . but basically I buy by brand.”

Other, less frequently mentioned comments included the following:

- “From TV and articles you get bombarded with looking at labels.”
- “I don’t look for selection, I look more for curiosity (sometimes after the purchase).”

3.3.2 Results of Telephone Focus Group with Experts

The group members did not believe that the low-literacy individuals gave much importance to nutrition labels. Therefore, the group did not generate much discussion on the topic of why consumers use labels. Dr. Hadden, a risk communication and public policy specialist, said that consumers look at nutrition labels when they switch products. Dr. Geiger found that consumers use labels to compare nutrients when deciding between different brands. The findings in our low-literacy focus group supported these theories.

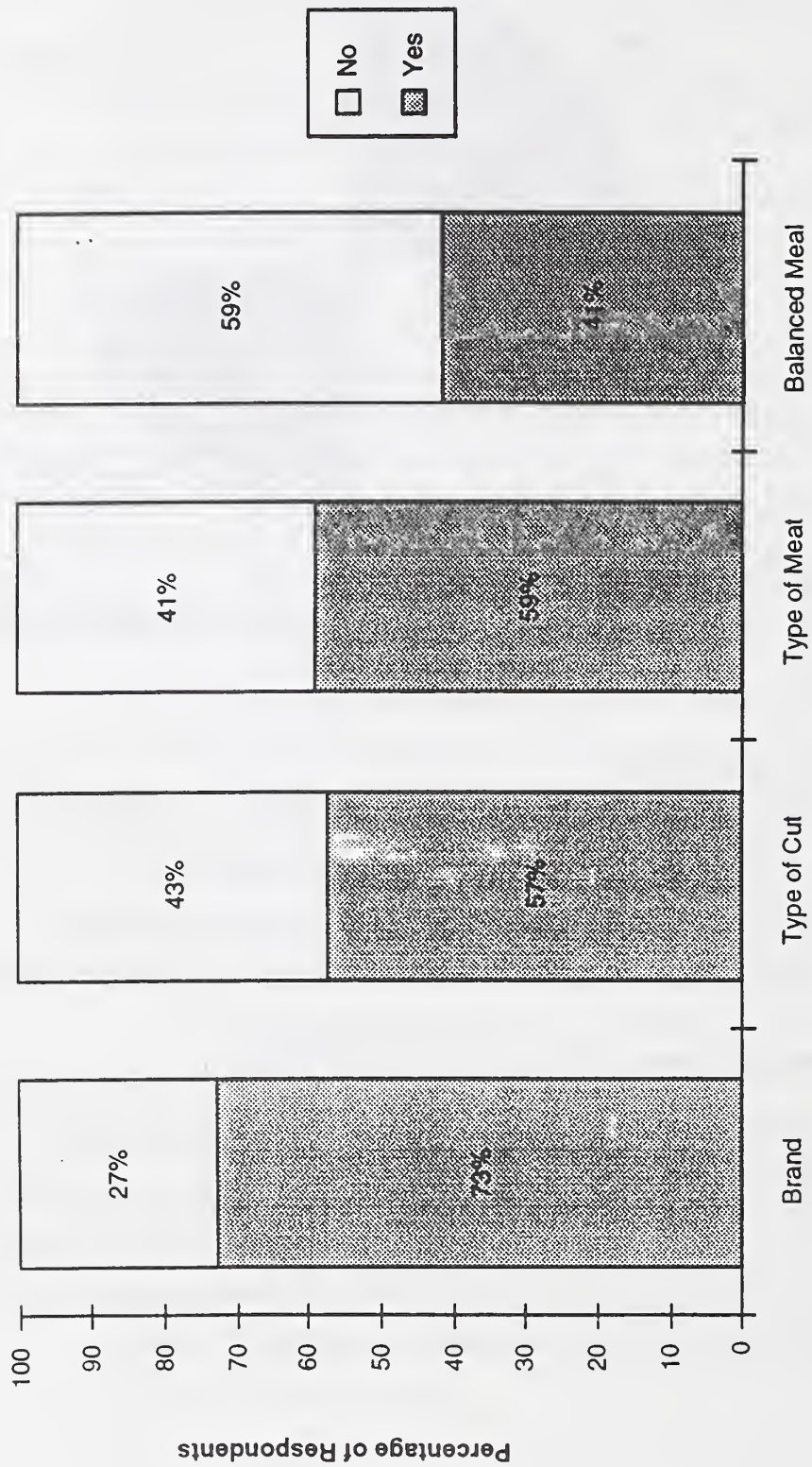


Figure 3-7. Reasons for Using Meat/Poultry Nutrition Labels in Last 30 Days

3.3.3 Results of Focus Group with Low-Literacy Consumers

Although not as many of the members of the low-literacy focus group said that they read nutrition labels as the members of the general consumer focus groups, those who do read nutrition labels described several occasions for doing so:

- when choosing between two name brand products;
- when trying a product the first time;
- when determining if it is unhealthy; and
- when the price differs, to see if there is a difference in nutrition content.

3.4 INFERENCES DRAWN FROM PRESENCE OR ABSENCE OF LABELS

3.4.1 Results of Focus Groups with General Consumers

Most members of the general consumers focus groups were aware that not all products contain nutrition labels. They demonstrated this awareness in their response to the questions, “Are you aware that some meat and poultry products have nutrition labeling and others do not?” and “Are you aware that some brands of the same meat and poultry products have nutrition labeling and other brands do not?” Figure 3-8 shows the responses to these questions. Eighty-five percent of the focus group members were aware that not all meat and poultry products are nutritionally labeled while 59 percent were aware that not all brands of the same meat and poultry product are nutritionally labeled.

The questionnaire followed up these questions by asking if the participants assume that products with nutrition labels are any more or less nutritious than products without nutrition labels and if they had ever decided not to buy a product because it lacked a nutrition label. As shown in Figure 3-9, approximately half of the respondents perceived that a product without a nutrition label had a different nutritional value than a product with a nutrition label. Thirty-one percent of the respondents had at least one time decided against purchasing a product because it lacked a label. Several participants expressed the fear that without a label, “I’d be afraid they’re hiding something.” Another reason given for not buying products without labels was, “If they can’t afford the label, what’s in the product?”

We tested the correlation between respondents who said that they draw an inference from the presence or absence of nutrition labels and respondents who said that in the past they have decided not to buy a product because it lacked a nutrition label. The coefficient of correlation

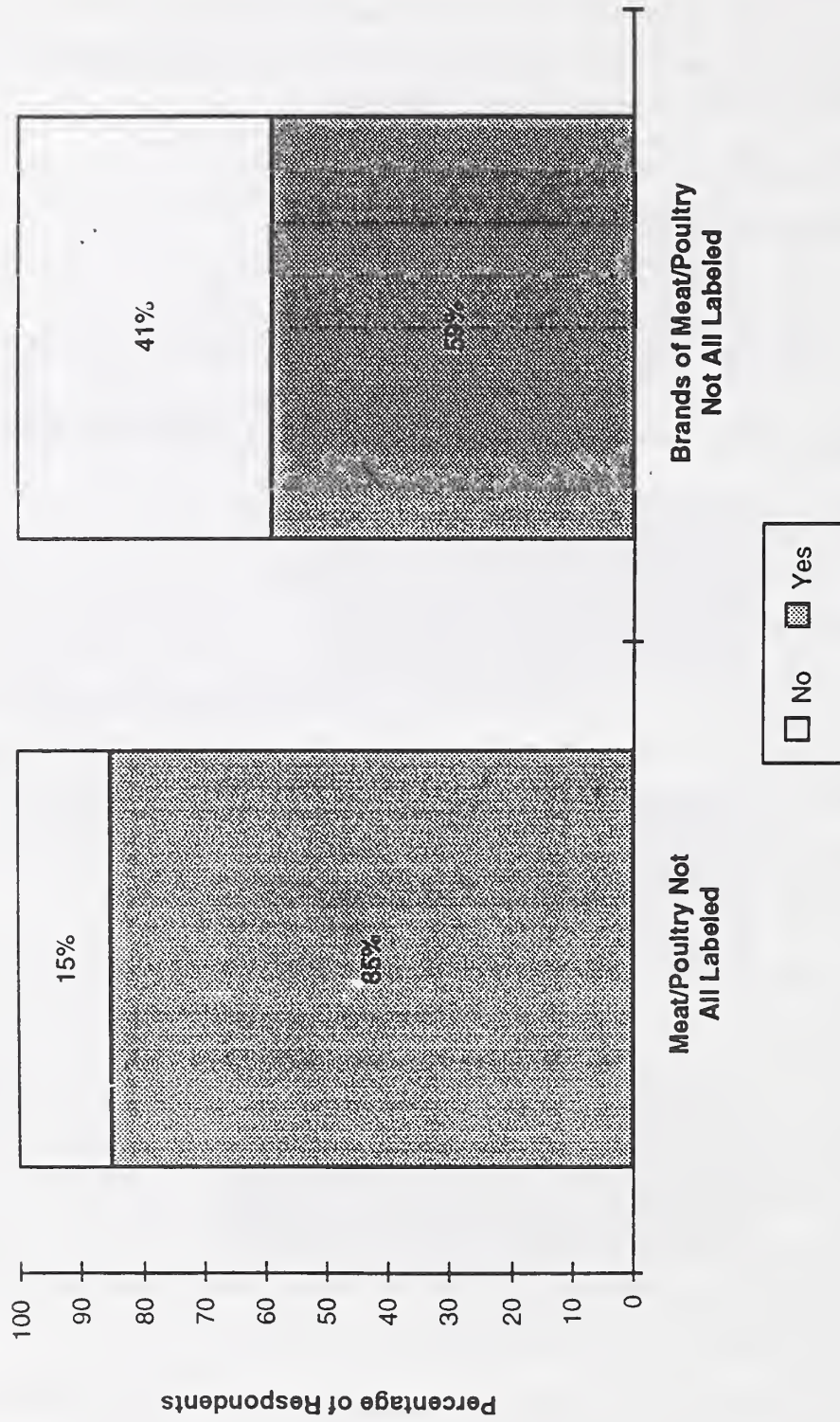


Figure 3-8. Meat/Poultry Labeling Awareness

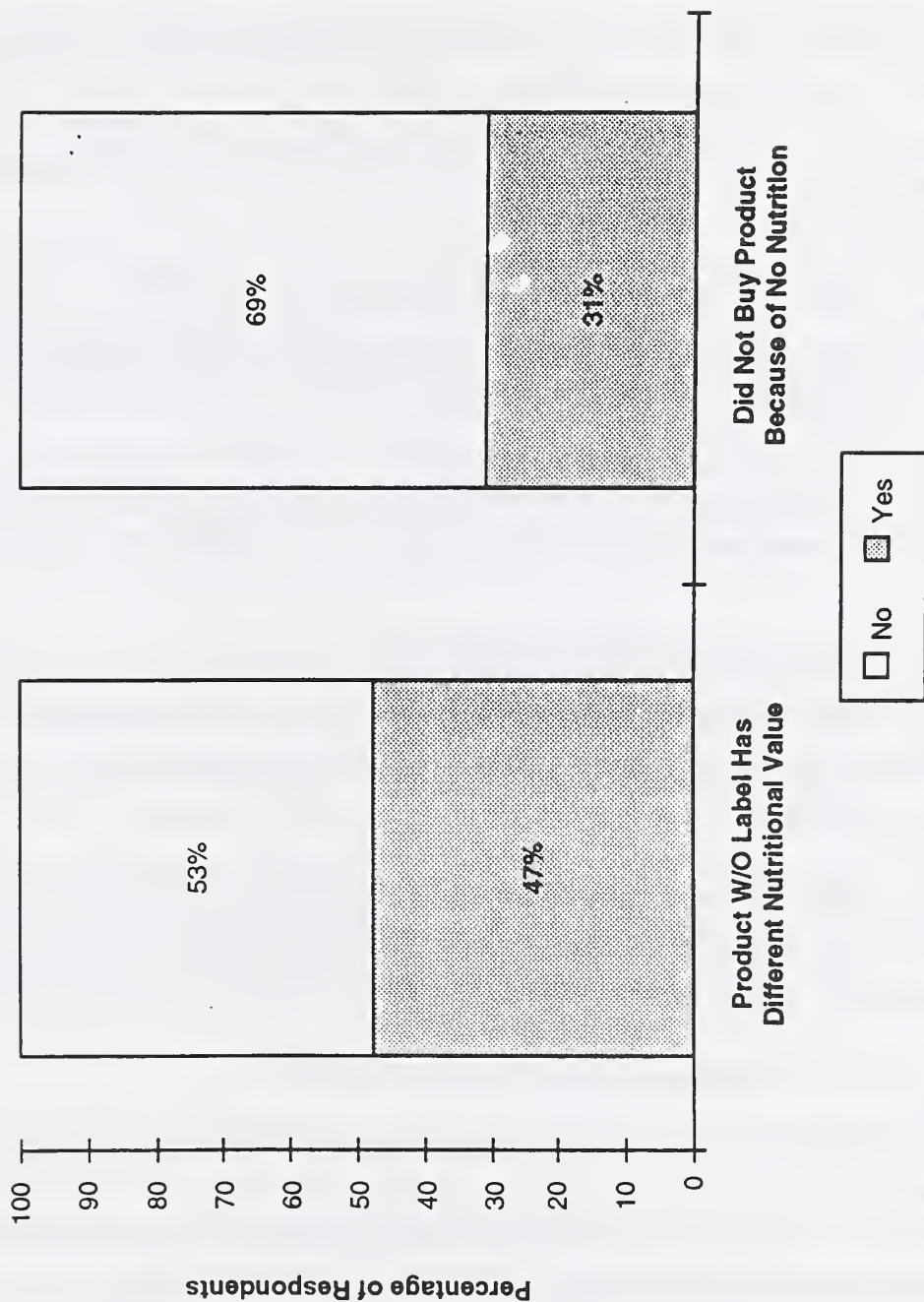


Figure 3-9. Perceptions of Products Without Nutrition Labels

was positive, but just 0.11. This correlation means that consumers who indicated that they draw inferences from the presence or absence of nutrition labels are slightly more likely to have decided not to buy a product because it lacked a nutrition label than are consumers who indicated that they do not draw inferences from the presence or absence of nutrition labels.

During the discussion we showed the group members pictures of labels from two fictional products. Though the products had different names, no other differences were apparent between them except for the fact that one of the labels had a nutrition panel while the other did not. When the participants were asked to choose the product they would buy, they had the following responses:

- “If they were the same price, I’d buy the one with the label.”
- “If ingredients (in two products) are the same, it caused me to look for some other difference, so I look at the nutrition information; if it’s not there I buy the other product.”

The question was then repeated after telling the participants that the price of the product with the nutritional panel was higher than the price of the other product. Responses included the following:

- “If it (the product with a nutrition label) were a dollar more, I’d put it down.”
- “I’d be willing to pay more (within reason) for a product with the nutrition label.”
- “I don’t think we should have to pay more (for a nutrition label). It’s the company’s obligation.”

The discussion clearly demonstrated that a large number of the participants prefer products with nutrition labels. However, how valuable the label information is to them was not clear, but some participants were certainly willing to pay extra for products with nutrition labels.

3.4.2 Results of Telephone Focus Group with Experts

Dr. Nitzke felt that low-literacy consumers did indeed draw inferences from the absence of nutrition labels. She said, “I think they look for quick ways of making a judgment without having to understand all the details.” She added that she thinks this is unfortunate because we shouldn’t assume labeled products are better than unlabeled products.

Dr. Geiger felt that the image of a product is enhanced just by having a label. She went so far as to say that she thought putting a negative label on a product wouldn’t hurt its market

share. (Presumably, by negative label she means a label showing that the product has high levels of undesirable nutrients and/or low levels of desirable nutrients.)

Dr. Hadden said she felt that consumers no longer infer anything from the presence or absence of a label. She feels that people used to infer that the product with the label was healthier but that practice has “run its course.”

3.4.3 Results of Focus Group with Low-Literacy Consumers

The members of the low-literacy focus group seemed divided on whether to draw inferences from the presence or absence of nutrition labels. While some participants were unaware that some meat and poultry products have labels and others do not, those who were aware were divided on whether they would buy a product without a label. A couple of the participants said that they would not buy a product without a label—“there might be something in there that I might not want to eat.” Others said that they would not assume that a labeled product was more nutritious so absence of a label would not affect their choice—“I’ll eat it anyway.” Most said that they had never decided *not* to buy a product because it didn’t have a label.

When shown pictures of the same two fictional product labels as the general consumer focus group, the members of the low-literacy group said that they preferred the product with the label, but if the products had different prices they would buy the less expensive product. Although several of the general consumers had been willing to pay more for the nutrition label, none of the low-literacy group seemed willing to pay extra for the nutrition label. This conclusion supports the earlier finding that the general consumers give nutrition information more weight in purchasing decisions than the low-literacy individuals. This finding might be true if low-literacy consumers have low income levels as well. Having fewer dollars to spend would tend to increase the importance of price to the consumer.

3.5 NUTRITION INFORMATION AT DIFFERENT STAGES OF PREPARATION

3.5.1 Results of Focus Groups with General Consumers

The questionnaire did not address whether consumers wanted nutrition information at different stages of preparation, but we covered this topic in the discussion. The majority of participants who commented on this topic said that they would rather have the information in the raw form. As an explanation one participant said, “I’d rather have it in raw form—I might want to cook it a different way.” About half as many of the participants who said they wanted the

information about the raw form said that they would prefer having information about the prepared form. Their reasoning was, “Why would you want uncooked information on something like ground beef when you can’t eat it uncooked?” A few group members suggested presenting the information about both the raw and prepared form. One prevailing feeling among the groups was that the information for a given product (e.g., ground beef) should be provided in a consistent way (e.g., fried) from company to company.

Those participants who wanted the information provided “as prepared” provided the following suggestions:

- “Provide information on the simplest (fewest ingredients added) cooking method.”
- “I’m promoting a range of nutrition (which would include various forms of preparation).”

3.5.2 Results of Telephone Focus Group with Experts

Dr. Nitzke said that providing nutrition information about raw meat or poultry is not good because nobody eats it raw. She feels that nutrition information should be provided about the product after it has been prepared in a recommended manner. She said the means of preparation should be consistent across labels.

Dr. Geiger agreed with Dr. Nitzke, saying that rarely do consumers eat meat and poultry products raw. She thinks that providing nutrition information about both the raw and prepared form of the product is best.

Ms. Schuster and Dr. Hadden also agreed that “as prepared” is better because the product is not going to be eaten raw.

Dr. Russo agreed that information should be provided “as prepared,” but the label should indicate how the product was prepared. He explained that “consumers want to know what they’re eating, not what they’re buying.”

3.5.3 Results of Focus Group with Low-Literacy Consumers

The low-literacy group members were fairly unanimous in wanting the nutrition information on meat products to be presented “as prepared.” They felt that nutrition information about the raw product for products that are typically cooked is less desirable than nutrition information about the product after it is cooked. Several members said that, even if the product is frequently prepared in different ways (e.g., fried, grilled, baked), they would still rather have

the nutrition information about a prepared form of the product. But they agreed with Dr. Russo by saying that they want the label to list the method of preparation, not just a statement like “as prepared using recommended methods.”

3.6 UNIFORM DESCRIPTORS

3.6.1 Results of Focus Groups with General Consumers

The questionnaire asked the participants to rank the following descriptors in perceived order of fat content:

- extra lean
- fat-free
- lean
- low fat

Only 34 percent of the respondents correctly ranked the four descriptors. Respondents fairly accurately (85 percent) ranked fat-free as the lowest measure of fat content. However, participants were very confused about low fat, extra lean, and lean. Only 45 percent of the respondents accurately ranked low fat as the second-lowest measure of fat content; 46 percent accurately ranked lean as the highest measure of fat content, just 38 percent accurately ranked extra lean as the third-lowest measure of fat content. Figure 3-10 summarizes these results. Obviously the majority of the general consumer focus group members were very confused by the meaning of those four common descriptors.

Although few participants were able to correctly rank the descriptors, as a whole they were not discouraged about the usefulness of descriptors. Most felt that descriptors were potentially useful if the definitions are intuitive and didn't vary from company to company. Participants provided other comments and suggestions about uniform descriptors:

- “It would be helpful in percentages.”
- “The definitions’ are no better than the words (fat free, extra lean, etc.).”
- “These terms are meaningless (to consumers). They’re just advertising.”
- “As a consumer, I wouldn’t know the difference in low fat and extra lean. It seems the description should go along with it.”
- “It seems to me it’s useless. If people are going to buy chicken, they’re going to buy chicken unless it’s oozing fat.”

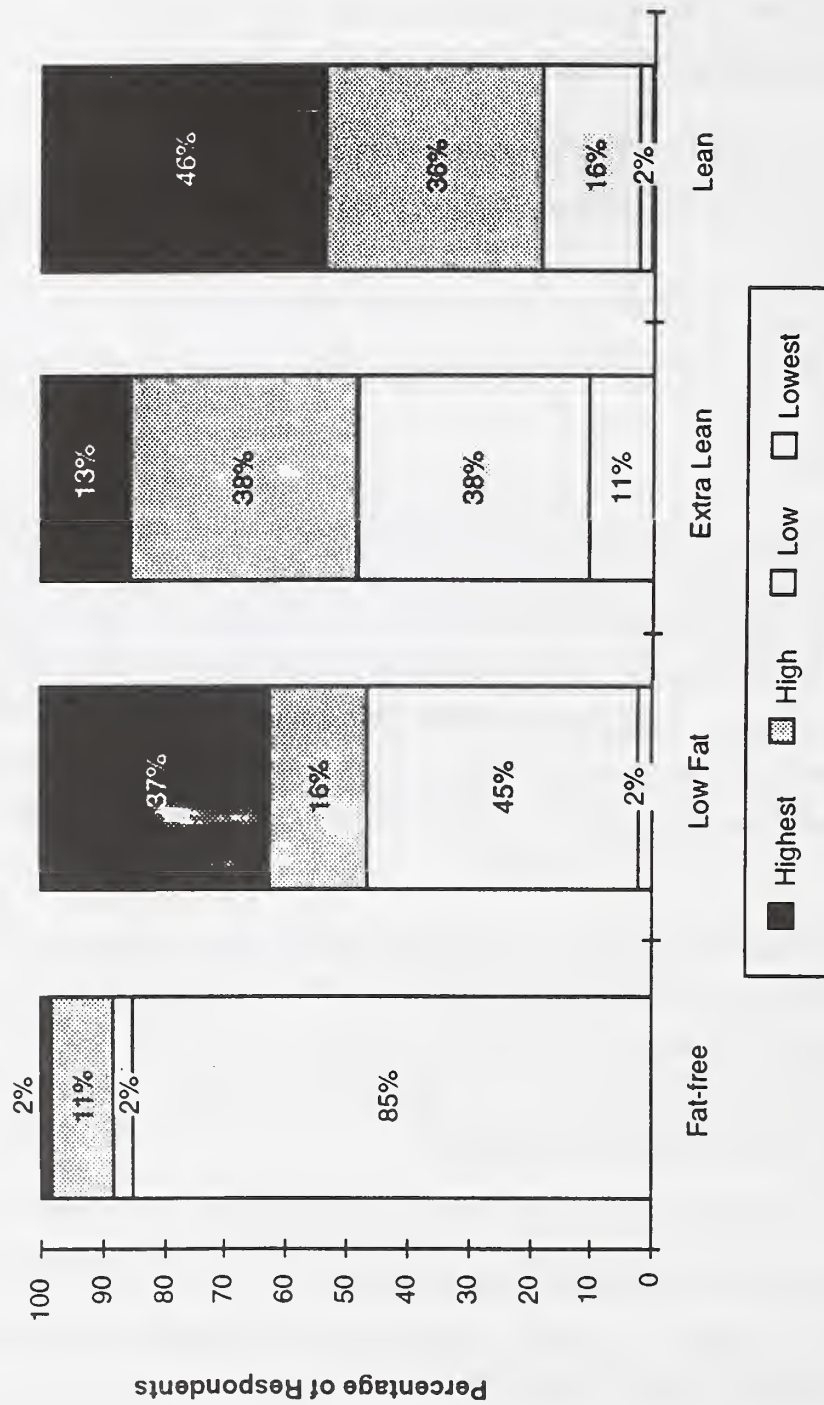


Figure 3-10. Fat Content Rankings of Uniform Descriptors

- “I have yet to see any type of education of what the terms (light, fat free, lean, etc.) mean.”
- “I don’t have time to study this. I want the information on the package to be as simple as possible.”
- “What is the reference point (for the descriptors)?”

3.6.2 Results of Telephone Focus Group with Experts

Dr. Geiger said that her studies show consumers prefer descriptors (e.g., high fiber) over explicit health claims (e.g., if you eat foods high in fiber you may reduce your risk of colon cancer). But she said definitions of descriptors need to be the same across nutrients (low fat and low salt need to mean the same thing).

Dr. Russo, along with several of the other participants, said that descriptors should be aligned with intuition, with natural consumer usage. This suggestion can be accomplished by using words in their comparative and superlative forms. Instead of using combinations of descriptors such as *less fat* and *reduced fat*, which can’t easily be ranked, companies should use *less fat* and *much less fat*.

The general consensus of the experts was that descriptors are good, but they need to be clearly defined. They seemed to prefer absolute descriptors over relative descriptors because relative descriptors are hard to define and can be confusing. With relative descriptors consumers find knowing how healthy the reference food is difficult. For example, if a product is 25 percent less fat than an extremely fat reference product, the descriptor *25 percent less fat* on its label can trick people into thinking the product is healthy.

Dr. Russo felt that uniform descriptors are absolutely necessary. He said that relative descriptors help make decisions within product categories while absolute descriptors encourage decision-making between product categories. He said the between-category comparisons lead to long-term changes in eating patterns.

Dr. Bettman, an information processing and consumer behavior specialist, agreed that relative descriptors make change between products within a category (e.g., hotdogs) easier, particularly for low-literacy consumers, but probably make change between categories (e.g., between hotdogs and hamburgers) harder. However, absolute descriptors make change between categories easier. A change between categories is long term and more meaningful than a change between products within a category. Dr. Bettman summed up his feelings on the current use of relative descriptors by saying, “[they] drive me nuts.”

3.6.3 Results of Focus Group with Low-Literacy Consumers

The members of the low-literacy focus group seemed familiar with the uniform descriptors on meat and poultry products; some of them said they use these descriptors in making purchasing decisions. When asked to rank extra lean, fat-free, lean, and low fat, the group members seemed to do it about as well as the members of the general consumer focus groups. For low-literacy individuals, uniform descriptors are probably easier to understand and use for assisting in purchase decisions than nutrition panels.

Several members said they have difficulty figuring out what the descriptors mean. They suggested including the definition on the label along with the descriptors. None of the participants expressed displeasure with the use of extra lean, fat-free, lean, and low fat as descriptors. But they reacted strongly against the use of less-fat, light, percent fat free, and reduced fat as descriptors. Participants felt that the repeated use of the word fat was very confusing.

SECTION 4

CONCLUSION

We present our conclusions based on the focus groups with consumers and experts in consumer decision making. They are generalizations that should be considered tentative because they are based on a small, nonrandom sample of the population of consumers. For each topic area we draw appropriate conclusions and then assess the merits of conducting a larger scale national survey.

1. The Relative Importance of Nutrition Content and Information

Both low-literacy and general consumers agree that after price, taste, and brand name, nutrition content is the most important factor when making purchase decisions. Many consumers claim to “very carefully read [nutrition] labels for health information.” We believe a large-scale survey would show no significant differences.

2. Frequency That Consumers Look at Nutrition Labels When Grocery Shopping

Several large-scale surveys have been conducted to determine whether consumers read nutrition labels. These studies, along with our focus groups, show that consumers almost always report that they read labels. Eighty-eight percent of our general consumer focus group members reported to have read nutrition labels at least twice in the last 30 days. Many report that they read labels “nearly every time or every time” they purchase food—including fresh and processed meat and poultry products.

However, the consumer behavior specialists that participated in our expert focus group claim that self-reporting of label use tends to overestimate actual use. In any case, we do not believe that conducting any additional surveys on the frequency of consumers’ label use would be beneficial.

3. Reasons Consumers Read Nutrition Labels

The primary reason that consumers read nutrition labels is because of health concerns, sometimes general but often specific to doctor’s advice. When reading labels consumers don’t read everything on the nutrition label. They generally check labels for “negative” information (e.g., sodium and fat) rather than for positive information (e.g., vitamins and fiber). Common concerns include levels of sodium, fat, and cholesterol. The most common time for consumers to read labels is when comparing two brands or

when buying a particular product or brand of product for the first time. We do not believe that conducting a large-scale survey to determine why consumers read nutrition labels would be useful.

4. Inferences Consumers Draw from the Presence Or Absence of Labels

Consumers are fairly unanimous in saying that they want products to have nutrition labels. Some consumers draw inferences from the presence or absence of nutrition labels on products. These consumers generally feel that products without labels are “hiding something.” Sometimes consumers even use the absence of a label as a reason not to buy a product when deciding between similar products.

Whether and how consumers draw inferences from the presence or absence of nutrition panels might well be worthy of a national survey, because the results of our focus groups are ambiguous and the health benefits of mandatory nutrition labeling may depend on consumer behavior in this regard. How much consumers value nutrition labels is unclear. If the proper survey instrument were used, gaining a greater understanding of how much consumers value nutrition information could be possible through a large-scale survey.

5. Consumers’ Opinions about Nutrition Information at Different Stages of Preparation

Consumers disagree about whether they would prefer nutrition information on fresh meat and poultry products as packaged or as prepared. The focus group of low-literacy consumers suggests that this population would prefer nutrition information about food “as prepared” (cooked). Our focus groups with general consumers seemed to indicate that they, on the other hand, prefer nutrition information about food “as packaged” (raw). However, our expert focus group felt that consumers (in general) want information supplied “as prepared” because the product is not going to be eaten raw. These results seem inconsistent. A well-designed, large-scale survey could provide better information on this subject.

6. Consumer Use of Uniform Descriptors

Consumers think uniform descriptors like “light,” “lean,” and “less salt” are potentially very useful. In particular, low-literacy consumers who have difficulty understanding nutrition labels can benefit from the simplicity of uniform descriptors. The

majority of consumers are currently confused by the definition of many descriptors in use now and even by those proposed by FSIS and the Food and Drug Administration. A large-scale survey would probably add little to our knowledge of consumers' use of descriptors.

REFERENCES

- Greenbaum, Thomas L. 1988. *The Practical Handbook and Guide to Focus Group Research*. Lexington, MA: Lexington Books.
- Shepherd, Sandra K., Laura S Sims, Frances J. Cronin, Anne Shaw, and Carole A. Davis. 1989. "Use of Focus Groups to Explore Consumers' Preferences for Content and Graphic Design of Nutrition Publications." *Journal of the American Dietetic Association* 89(11):1612-1614.
- U.S. Department of Agriculture (USDA), Food Safety and Inspection Service. 1991a. *Federal Register*. Part II. 9 CFR Parts 317, 320, and 381. Nutrition Labeling of Meat and Poultry Products; Proposed Rule. Government Printing Office: Washington, DC. November 27.
- U.S. Department of Agriculture (USDA), Food Safety and Inspection Service. 1991b. *Federal Register*. Part VII. 9 CFR Parts 317 and 381. Nutrition Labeling of Meat and Poultry Products; Proposed Rule. Government Printing Office: Washington, DC. April 2.

APPENDIX A

PARTICIPANT SCREENING DOCUMENT

SCREENER FOR FOCUS GROUP INTERVIEWS ON MEAT/POULTRY PRODUCTS

[Note: Do not give any information about the group, beyond "food products." Do not reveal the identity of the client.]

Hello, my name is _____. I work with _____, a local market research company. Today, I'm recruiting people for a focus group discussion on food products. Could I ask you a few questions about yourself? This will only take a few minutes of your time. I want to stress that I'm not trying to sell you anything.

1. Do you do most or a lot of the grocery shopping for yourself or your household?
Yes ----- Continue with screening.
No ----- Conclude call.
2. Are you over age 18?
Yes ----- Continue with screening.
No ----- Conclude call.
3. Have you participated in a focus group discussion in the past six months?
Yes ----- Conclude call.
No ----- Continue screening.
4. Identify person's sex.
Male ----- Try to get a couple of males in evening sessions.
Female ----- Screening completed.

On [Day/Date] at [Time] we will be conducting a focus group discussion in our offices, and I'd like for you to join us. The meeting will last about two hours, and it will be necessary for you to stay the entire time. We will pay you [Amount] for your participation. Will you join us for this focus group discussion?



APPENDIX B

RESUMES OF EXPERT PANEL PARTICIPANTS

CONSTANCE J. GEIGER, PH.D., R.D., C.D.

Division of Foods and Nutrition
239 N-HPR
College of Health
University of Utah
Salt Lake City, Utah 84112
(801) 581-8240
..

ACADEMIC TRAINING:

Ph.D.	1988	Nutrition and Food Science Emphasis: Marketing Utah State University Logan, Utah
M.S.	1978	Medical Dietetics Ohio State University Columbus, Ohio
R.D.	1976	Dietetic Internship with Clinical and Food Service Management Emphases Medical College of Virginia Hospitals Richmond, Virginia
B.S.	1975	Foods and Nutrition and Food Service Management University of North Carolina Greensboro, North Carolina
	1972- 1971	Mary Washington College of the University of Virginia Fredricksburg, Virginia

COMPETENCY/INTEREST AREAS:

Integration of marketing research techniques into nutrition education research, nutrition/health claims labeling, nutrition assessment techniques, weight management and food faddism.

PROFESSIONAL CREDENTIALS:

C.D.	1987	Certified Dietitian State of Utah 00242-4401-1
R.D.	1977	Registered Dietitian American Dietetic Association R-430901

PROFESSIONAL EXPERIENCE:

2/90 - present	Consultant Health Communications and Education The Simplesse Company Skokie, Illinois
7/86 - present	Director Division of Foods and Nutrition University of Utah Salt Lake City, Utah
7/85 - present	Assistant Professor Division of Foods and Nutrition University of Utah Salt Lake City, Utah
4/85 - present	Medical Affairs Consultant The NutraSweet Company Deerfield, Illinois
9/84 - 7/85	Associate Instructor Division of Foods and Nutrition University of Utah Salt Lake City, Utah
8/84 - 12/84	Clinical Instructor Coordinated Undergraduate Program in Medical Dietetics College of Family Life Utah State University Logan, Utah
1/84 - 7/85	Research Assistantship Dr. Bonita Wyse Department of Nutrition and Food Science Utah State University Logan, Utah

6/81 - 12/83	Associate Instructor Division of Foods and Nutrition University of Utah Salt Lake City, Utah
3/78 - 4/81	Nutritionist and Research Associate Nutrition Education and Clinical Nutrition Department of Foods and Nutrition Division of Scientific Affairs American Medical Association Chicago, Illinois
1/78 - 3/78	Kellogg Nutrition Resident Department of Medical Dietetics College of Medicine Ohio State University Columbus, Ohio
1/77 - 3/78	Consulting Dietitian in Private Practice Kingsdale Gynecologic Associates Columbus, Ohio
Summers 1974, 1975	Diet Technician and Diet Assistant Shadyside Hospital Department of Dietetics Pittsburgh, Pennsylvania

HONORS AND AWARDS:1. Fellowships and Scholarships:

1984 - 1985	Research Assistantship Department of Nutrition and Food Science Utah State University Logan, Utah
1977	Advanced Allied Health Professions Traineeship Ohio State University Columbus, Ohio
1975	North Carolina Dietetic Association Outstanding Senior Scholarship Recipient
1971 - 1975	Pennsylvania Higher Education Award Association Scholarship Recipient

2. Honor Societies:

1988, 1989	Who's Who of American Women
1988	Phi Kappa Phi
1974	Omicron Nu Honor Society

3. Awards:

1990	American Dietetic Association Outstanding Service Award
1986	Omicron Nu Award of Excellence
1975	Stokely Van Camp Outstanding Senior Award for Excellence
1975	Golden Chain Award for Outstanding Scholarship, Leadership and Service

Graduate Students SupervisedDegree Conferred

Tina Braet-Thomas		
Joseph Marelli		
Miriam Nielsen		
Lynne Fackler		
Melissa Struwe	M.S.	
Elizabeth Young	M.S.	1992
Kathy Heinrich	M.S.	1991
Gail Wiebke	M.S.	1991
Sheryl L. Bodily	M.S.	1989
Susan Fullmer	M.S.	1989
William J. Rusho	M.S.	1989
Lorna Raty	M.S.	1989
Patricia J. Hobbs	M.S.	1989
Cynthia M. Overturf	M.S.	1988
Leisa S. Zarian	M.S.	1987
Joan E. Benson	M.S.	1987
Anne Morisette Pike	M.S.	1987
Bonnie Sue Wells Ranno	M.S.	1986

RESEARCH:

1. Extramural Grant Awards:

CONFIDENTIAL

1991	Unimed, Inc. and Roxane Sales, Inc. \$20,000. The Effect of Dronabinol on Appetite and Nutritional Status in Symptomatic HIV Infection. Evans, T., Kaempfer, S., GEIGER, C.J., Struwe, M.
1990	A.E. Staley, \$44,000. The Effect of Purified Corn Bran on Serum Total Cholesterol, Lipoprotein Cholesterol Triglycerides, and on Apolipoproteins A-1 and B in Free-Living Hypercholesterolemic Subjects. Cimmarusti, J., Gould, R., Hopkins, P., McMurry, M., and GEIGER, C. J.
1989	National Dairy Council. \$2,000. Visiting Professorship in Nutrition. GEIGER, C.J.
1988	Herbert I. and Elsa B. Michael Foundation. Request for matching funds for \$4,000 Maurine N. Hegsted Scholarship. Gould, R.A. and GEIGER, C.J.

- 1987 Sawtooth, Inc. \$12,000. Nutrition Labeling, Use of Adaptive Conjoint Analysis. Utah State University. Parent, C.R.M., GEIGER, C.J. and Wyse, B.W. (My proposal was the basis for this grant)
- 1987 National Dairy Council. \$1,750.00. GEIGER, C.J. Visiting Professorship in Nutrition.
- 1987 Ross Laboratories. \$20,000. Comparison of Pulmocare with Medium and Low Fat Formulas for Night Time Enteral Feedings and Nutrition Supplementation of Cystic Fibrosis Patients. Kane, R., Raymond, J., Black, P., and GEIGER, C.J.
- 1986 Campbell's Soup. \$10,000. Nutrition Labeling. Utah State University. Wyse, B.W., Hansen, R.G., and GEIGER, C.J.

2. Intramural Grant Awards:

- 1992 Deans Research Incentive Fund. \$2000. The Evaluation of Client Outcomes and Determination of Client Preferences for the Body Image Unlimited Program. GEIGER, C.J., Thompson, R. and Engelbert-Fenton, K.
- 1991 Dean's Research Incentive Fund \$3,500. Request for CI2 and ACA Computer Programs to Conduct: (FDNU) Marketing Research Studies. GEIGER, C.J. and Ruddell, E.
- 1990 Dean's Research Incentive Fund \$2,037. University Research Committee \$1,000. Biomedical Research Committee \$4,000, Using Adaptive Conjoint Analysis and Market Simulations to Determine the Effect of Nutrition Labels and Health Claims in Purchase Behavior: Predictive Ability of Market Maven, Shopping Behavior and RoKeach Value Scales. GEIGER, C.J.
- 1990 Special Research Instrumentation Fund. \$4,600. Rapid Sampler and Thermal Cuvette Controller for Gelford Spectrophotometer. GEIGER, C.J. and Luetkemeier, M.
- 1989 Dean's Research Incentive Fund. \$1,799.53. Health Claims Labeling: (1) Effect of Consumer Purchase Decisions and (2) Consumer Awareness, and Knowledge of Perceptions. GEIGER, C.J.
- 1988 University Research Committee. \$7,000. Metabolic Gas Monitor II. GEIGER, C.J.
- 1987 Dean's Research Incentive Funds. \$2,000. Nutrition Labeling. GEIGER, C.J.
- 1985 Biomedical Research Support Committee. \$2,700. (Transferred from Dr. Gordon M. Wardlaw). Nutritional Intake and Dance - Related Injuries. GEIGER, C.J.

3. Grant Proposals Submitted:

August 1991. Practor Care. \$2610. Current Status of Computer Training for Entry-level Dietitians: Needs for Computer Program Development. GEIGER, C.J. and Nielson, M.

May 1990. \$1,000,000. Bioregenerative Life Support: Nutrition and Food Production. NASA Specialized Center of Research and Training. GEIGER, C.J., Gould, R.A., Benson, J.E., Mozar, A. Denied.

October 1989. \$36,700. National Livestock and Meat Board. Using Adaptive Conjoint Analysis and Market Simulations to Determine the Effect of Nutrition Labels and Health Claims in Nutrition Purchase Behavior of Red Meat. Referred to Marketing Department. GEIGER, C.J. Denied.

October 1989. Smith Food King/Winder Dairy. \$12,840. Body Image Unlimited. Varechok, S., Benson, J., GEIGER, C.J., and Hepworth-Woolston, C.J. Denied.

January 1989. \$29,260. National Dairy Council. Using Adaptive Conjoint Analysis and Market Simulations to Determine the Effect of Nutrition Labels and Health Claims on Consumer Purchase Behavior. Predictive Ability of Market Maven, Shopping Involvement and RoKeach Value Scales in Nutrition Purchase Behavior. GEIGER, C.J. Approved, not funded due to termination of the program at the National Dairy Council.

4. Publications:

A. Refereed Journal Articles

GEIGER, C.J., Wyse, B.W., Parent, C.R.M., and Hansen, R.G. Bar Graph, Informative Nutrition Labels Deemed Most Useful for Consumer Purchase Decisions Using Adaptive Conjoint Analysis. *Journal of the American Dietetic Association*. 91(7) p.800-807, 1991.

GEIGER, C.J., Parent, C.R.M., and Wyse, B.W., Nutrition Labeling Formats: Review of Literature. *Journal of the American Dietetic Association*. 91(7) p.808-815, 1991.

Fullmer, S., GEIGER, C.J., and Parent, C.R.M. Consumer Knowledge, Understanding and Attitudes Toward Health Claims and Food Labels. *Journal of the American Dietetic Association*. 91(2): 166-171, 1991.

Benson, J.E., GEIGER, C.J., Eisenman, P.A., and Wardlaw, G.M. Relationship Between Nutrient Intake, Body Mass Index, Menstruating Function and Ballet Injury. *Journal of the American Dietetic Association*. 89:58, 1989.

Ranno, B.S., Wardlaw, G.M., and GEIGER, C.J. What Characterizes Elderly Women Who Overuse Vitamin and Mineral Supplements. *Journal of the American Dietetic Association*. 88:347, 1988.

B. Submitted Papers

Overturf, C.M., Smith, A.M., Engelbert-Fenton, K.A., Elster, A.B. and GEIGER, C.J., Nutrient Intake Affects Development of Genitourinary Tract Infections in Pregnant Adolescents. *Journal of the American Dietetic Association*. Accepted, pending revisions, Autumn 1991.

1. Selected Papers in Progress

GEIGER, C.J. The Effect of Nutrition Information and format on Consumer Purchase Decisions.

GEIGER, C.J. The Predictability of Market Maven, Purchase Involvement and Roikeach Value Scales for Nutrition Label Information.

GEIGER, C.J., Fackler-Pauley, L. The Use of Market Simulations to Predict the Effect of Nutrition Information on Market Share.

GEIGER, C.J., Fackler-Pauley, L. Consumer Comprehension of a Variety of Nutrition Label Formats.

GEIGER, C.J., Fackler-Pauley, L. Consumer Comprehension of Arrangement of Nutrition Label Information

GEIGER, C.J., Fackler-Pauley, L. Further Research on Consumer Preference for Nutrition Label Format

GEIGER, C.J. Further Research on Consumer Preference for the Most Useful Nutrition Label in Purchase Decisions.

GEIGER, C.J. Homogeneous Consumer Preference for the Most Useful Nutrition Label in Purchase Decisions

C. Invited Journal Publications

GEIGER, C.J. Activities of the Department of Foods and Nutrition of the American Medical Association. *Connecticut Medicine* 43: 655-657, 1978. (Includes the results from the 1978 Survey of Nutrition Teaching in U.S.)

GEIGER, C.J. Carcinogenicity of Natural Versus Refined Sugars. *Journal of the American Medical Association* 204:2000, 1978.

D. Book Chapters

GEIGER, C.J. Nutrition in Health Care Delivery Systems. In *Nutrition in Oral Health and Disease*. Eds. Robert L. Pollack, Ph.D. and Edward Kravitz, D.Sc. Lea and Febiger: Philadelphia, 1985, p. 388-399.

White, P.L. and GEIGER, C.J. Nutrition in the Medical Curriculum: An American Perspective. In *Recent Advances in Clinical Nutrition Volume I*. Eds. Alan N. Howard, M.D. and Ian McLean Baird, M.D. John Libbey and Company, Ltd.: London, 1981, p. 280-296.

White, P.L. and GEIGER, C.J. Nutrition Education: The American Medical Association Perspective. In *National Workshop on Nutrition Education in Health Professional Schools*. September 30 and October 1, 1981. Ed. Donna Watson, M.S., R.D. Department of Health and Human Services and Emory University School of Medicine, 1981, p. 43-49. (Reprinted from *Recent Advances in Clinical Nutrition*.)

GEIGER, C.J. Nutrition Education in Medicine: Available Resources for Curriculum Development and Nutrition Training in U.S. Medical Schools. In *Curriculum Development in Applied Nutrition First Conference*. September 1980. Ed. Donna Watson, M.S., R.D. Department of Health and Human Services and Emory University School of Medicine, 1981, p. 70-76.

GEIGER, C.J. Nutritional Assessment of Hospitalized Patients. In *Nutritional Assessment - Present Status, Future Directions and Prospects*. Report of the Second Ross Conference on Medical Research. Ross Laboratories, Columbus, Ohio, 1981, p. 125-127. (Reprinted from *Clinical Nutrition in Health Care Facilities*.)

GEIGER, C.J. Nutrition Assessment of Hospitalized Patients. In *Clinical Nutrition in Health Care Facilities*. (American Medical Association Survey of Nutritional Assessment Technique) Eds. Willard A. Krehl, M.D. and N. Henry Moss, M.D. George F. Stickley Co.: Philadelphia, 1979.

E. Refereed Abstracts

GEIGER, C.J., Ability of Purchase Involvement and Market Maven Scales to Predict Utility for Nutrition Label and Brand Information. *FASEB Journal* 1992.

Wiebke, G.W., GEIGER, C.J. Benson, J., M. Luckemeier, R. Dawson-Crittendon. The Effect of Body Fat Distribution on Weight Loss and Metabolic Changes. *FASEB Journal* 1992.

Heinrich, K., GEIGER C.J. M. Ramirez, J. Benson. The Relationship of Resting Metabolic Rate and Body Fat Distribution to Menstrual Status in Collegiate Gymnasts. FASEB Journal 1992.

GEIGER, C.J., The Nutritional Frame for Health Message in Nutrition Labeling of Foods. Cereal Foods World - American Association of Cereal Chemists. 36(8) p.718, 1991.

GEIGER, C.J., Predictive Ability of Market Maven and Purchase Involvement Scales for Preferences for Nutrition Label Format and Information. Journal of the American Dietetic Association. 91(9) p.A-67, 1991.

Fackler, L. and GEIGER, C.J., Use of Focus Groups to Explore Consumer and Professional Preferences for Nutrition Labels and Health Claims. Journal of the American Dietetic Association 91(9) p.A-106, 1991.

Struwe, M., GEIGER, C.J. and Mozar, A., Development of a Home-Based Meal Service for Persons with HIV Infection. Journal of the American Dietetic Association 91(9) p.A-111, 1991.

Wiebke, G., Mozar, A. and GEIGER, C.J., Nutrition Education Program for People with HIV. Journal of the American Dietetic Association 91(9) p.A-99, 1991.

GEIGER, C.J. and Wyse, B.W. The Importance of Nutrition Information and Format in Consumer Purchase Decisions. FASEB Journal, 5(6), p.A1665, 1991.

GEIGER, C.J., Homogeneous Consumer Preference for the Most Useful Nutrition Label. Journal of the American Dietetic Association. 90(9) p. A-121, 1990.

GEIGER, C.J., Wyse, B.W., Parent, C.R.M., and Hansen, R.G. The Use of Adaptive Conjoint Analysis to Determine The Most Useful Nutrition Label for Purchase Decisions. FASEB Journal. 4(4), p. A1057, 1990.

Fullmer, S. and GEIGER, C.J. Consumers' Knowledge, Understanding and Attitudes Toward Health Claims. Journal of the American Dietetic Association. 90(9) p. A-20, 1990.

GEIGER, C.J., Parent, C.R.M., Wyse, B.W., and Hansen, R. G. The Use of Adaptive Conjoint Analysis and Market Simulations to Determine the Effect of Nutrition Label Information in Consumer Purchase Decisions. Journal of the American Dietetic Association. 89(9) p. A-129, 1989.

Bodily, S. and GEIGER, C.J. Herb and Vitamin/Mineral Supplement Usage in Southern California. ADA 1989 Annual Meeting Abstracts. The American Dietetic Association. October 1989.

GEIGER, C.J., Parent, C.R.M., Wyse, B.W., and Hansen, R. G. The Use of Adaptive Conjoint Analysis and Market Simulations to Determine the Effect of Nutrition Label Information in Consumer Purchase Decisions. ADA 1989 Annual Meeting Abstracts. The American Dietetic Association. October 1989.

GEIGER, C.J., Wyse, B.W., Parent, C.R.M., and Hansen, R.G. The Use of Adaptive Conjoint Analysis (ACA) to Determine the Most Useful Nutrition Label for Purchase Decisions. ADA 1988 Annual Meeting Abstracts. The American Dietetic Association. October 1988.

Overturf, C.M., Smith, A.M., Engelbert-Fenton, K. A., Elster, A.B. and GEIGER, C.J. Nutrient Intake and Development of Genitourinary Tract Infections in Pregnant Adolescents. Federation of American Societies of Experimental Biology Annual Meeting. Las Vegas, Nevada. May 1988.

Hobbs, P., Kane, R., Raymond, J., and GEIGER, C. Energy Needs in Cystic Fibrosis Patients. American Society of Enteral and Parenteral Nutrition. Las Vegas, Nevada. January 18, 1988.

Benson, J.E., GEIGER, C.J., Eisenman, P.A., and Wardlaw, G.M. In ADA 1987 Annual Meeting Abstracts, Prospecting the 1980s. The American Dietetic Association. Atlanta, Georgia. October 1987.

Ranno, B., Wardlaw, G., and GEIGER, C. Health and Lifestyle Characteristics of Elderly Women Who Overuse Vitamin and Mineral Supplements. The American Dietetic Association Conference for Advanced Practice and Research. Chicago, Illinois. February 1987.

F. Invited Abstracts

GEIGER, C.J. and Robinette, M.R. Nutrition Education for Future Health Scientists: Challenges and Directions. In ADA 1986 Annual Meeting Abstracts, New Visions, New Ventures. The American Dietetic Association. October 1986, p. 30.

GEIGER, C.J. Nutrition Teaching in U.S. Medical Schools. In ADA 1982 Annual Meeting Abstracts, Networking Success: Design for Tomorrow. The American Dietetic Association. October 1982, p. 144-145.

GEIGER, C.J. The Current Status of Nutrition in Medical Education. In ADA 1979 Annual Meeting Abstracts, Prospecting the 1980s. The American Dietetic Association. October 1979, p. 59.

1. Submitted Refereed Abstracts

GEIGER, C.J. Further Testing of the most useful nutrition label for consumer purchase decisions. American Dietetic Association Annual Meeting

Fackler, L., GEIGER, C.J. A Comparison of a variety of Nutrition Label Formats and Their Effect on Consumer Comprehension of Nutrition Label. American Dietetic Association Annual Meeting,

Struwe, M., GEIGER, C.J., Kaempfer, S.K., Pavia, A.T., Shepard, K.U., Plasse, T.F. Status of HIV Infected Individuals during a Randomized Study of Dronabinol. American Dietetic Association Annual Meeting

G. Government Testimony

Sammons, James H., M.D. American Medical Association, Additional Material Submitted by Dr. Sammons: The Current Status of Nutrition in Medical Curricula: Changes Since the 1976 Survey. Nutrition Education in Medical Schools. Part I. Hearing Before the Subcommittee on Nutrition of the Committee on Agriculture, Nutrition and Forestry. U.S. Senate. U.S. Government Printing Office: September 20, 1978, p. 106-111. This was a result of my research, which I prepared for these hearings.

GEIGER, C.J. Written Response to Questions by Senator Henry Bellmon Regarding Further Information on the 1978 Nutrition in Medical Education Survey. Nutrition in Medical Schools. Part II. Hearings before the Subcommittee on Nutrition of the Committee on Agriculture, Nutrition and Forestry. U.S. Senate, U.S. Government Printing Office: Washington, D.C. January 30, 1979, p. 75-76.

H. Posters

GEIGER, C.J., The Importance of Nutrition Information and Format in Consumer Purchase Decisions. Utah Dietetic Association Annual Meeting. April 11, 1991.

Fackler, L. and GEIGER, C.J., Use of Focus Groups to Explore Consumer and Professional Preferences for Nutrition Labels and Health Claims. Utah Dietetic Association Annual Meeting. April 11, 1991.

Struwe, M., GEIGER, C.J. and Mozar, A., Development of a Home-Based meal Service for Persons with HIV Infection. Utah Dietetic Association Annual Meeting. April 11, 1991.

Wiebke, G.A., Mozar, A. and GEIGER, C.J., Nutrition Education Program for People with HIV. Utah Dietetic Association Annual Meeting. April 11, 1991.

GEIGER, C.J., Wyse, B.W., Parent, C.R.M., Hansen, R.G. The Use of Adaptive Conjoint Analysis to Determine the Most Useful Nutrition Label for Purchase Decisions. Utah Dietetic Association Annual Meeting. Salt Lake City, Utah. May 18, 1990.

Hobbs, P., Kane, R., Raymond, J. and GEIGER, C.J. Energy Needs in Cystic Fibrosis Patients. Utah Dietetic Association Annual Meeting. Salt Lake City, Utah, May 18, 1990.

Hobbs, P.J., Kane, R.E., Raymond, J.L., and GEIGER, C.J. Energy Expenditure in Children and Young Adults with Cystic Fibrosis. Utah Dietetic Association Annual Meeting. Salt Lake City, Utah. April 1986.

I. Manuscript Review

Journal of the American Dietetic Association - 1978 - 1981, 1988 to present.

Journal of the American Medical Association - 1978 - 1981.

J. Thesis/Dissertation

Using Adaptive Conjoint Analysis and Market Simulations to Determine the Effect and Usefulness of Nutrition Label Information in Consumer Purchase Decisions. Volumes I and II. Dissertation, May 1988. 496 p. Published in Dissertation Abstracts International. Vol 50(1), July 89, p.130-B.

A Content Study of the Nutrition Component of the Ohio State University Medical Curriculum. Master's Thesis, January 1978. 140 p.

K. Accreditation/Graduate Review Documents

Self-Study for Graduate Review. The Division of Foods and Nutrition. University of Utah. March 1, 1989. 696 p. Two year status report, September 25, 1991.

Self-Study for Developmental Accreditation, The Coordinated Master's Program. Division of Foods and Nutrition. December 1, 1988. 825 p. (Also listed under Curriculum Development.)

5. Invited Presentations:

GEIGER, C.J. The Importance of Nutrition Information and Format in Consumer Purchase Decisions. FASEB Annual Meeting. Atlanta, Georgia. April 24, 1992.

GEIGER, C.J., Heinrich, K., M. Ramirez, J. Benson. The Relationship of Resting Metabolic Rate and Body Fat Distribution to Menstrual Status in Collegiate Gymnasts. FASEB ANNUAL Meeting. Los Angeles, California, April 8, 1992.

GEIGER, C.J. Ability of Purchase Involvement and Market Maven Scales to Predictability for Nutrition Label and Brand Information. FASEB ANNUAL Meeting. Los Angeles, California, April 7, 1992.

GEIGER, C.J., G. Wiebke, J. Benson, M. Luetkemeier, R. Dawson-Crittendon. The Effect of body Fat Distribution on Weight Loss and Metabolic Changes. FASEB ANNUAL Meeting. Los Angeles, California, April 6, 1992.

GEIGER, C.J. The Predictive Ability of Market Maven and Purchase Involvement Scales for Preferences for Nutrition Label Format and Information. The American Dietetic Association Annual Meeting, Dallas, Texas, October 30, 1991. (Published as a Refereed Abstract)

GEIGER, C.J. The Nutritional Frame for Health Messages in Nutrition Labeling of Foods. American Association of Cereal Chemists Annual Meeting. Seattle, Washington. October 11, 1991. (Published as a Refereed Abstract)

Fackler, L. and GEIGER, C.J. Use of Focus Groups to Explore Consumer and Professional Preferences for Nutrition Labels and Health Claims. Utah Dietetic Association April 11, 1991 and American Dietetic Association Annual Meeting, October 31, 1991. (Published as a Refereed Abstract)

Struwe, M., GEIGER, C.J. and Mozar, A. Development of a Home-Based Meal Service for Persons with HIV Infection. Utah Dietetic Association April 11, 1991 and American Dietetic Association Annual Meeting, October 31, 1991. (Published as a Refereed Abstract)

Wiebke, G.A., Mozar, A. and GEIGER, C.J. Nutrition Education Program for People with HIV. Utah Dietetic Association April 11, 1991 and American Dietetic Association Annual Meeting, October 29, 1991. (Published as a Refereed Abstract)

GEIGER, C.J., Fat Substitutes: The Wave of the Future. 15th Annual Conference on Cardiovascular Health. Utah Department of Health and the American Heart Association, Utah Affiliate. Salt Lake City, Utah. May 3, 1991.

GEIGER, C.J., Simplese All Natural Fat Substitute. Montana Home Economics and Dietetic Association Annual Meetings. Billings, Montana. April 18, 1991.

GEIGER, C.J., Division of Foods and Nutrition Development Presentation. National Advisory Council, President's Seminar and College of Health Development Board. March 12, April 9 and May 2, 1991.

GEIGER, C.J. Creating Healthier Food Choices for 1990. Akron Dietetic Association and the University of Akron Research Meeting. Akron, Ohio. November 7, 1990.

GEIGER, C.J. The Latest on Fat Substitutes: Panacea or Plethora of Problems. Ohio State University. Columbus, Ohio. November 5, 1990.

GEIGER, C.J. Simplese and Olestra: Is Fat-Free a Fantasy? Brigham Young University. Provo, Utah. November 2, 1990.

GEIGER, C.J. Homogeneous Consumer Preference for the Most Useful Nutrition Label. American Dietetic Association Annual Meeting, October 18, 1990. (Published as a Refereed Abstract.)

Fullmer, S. and GEIGER, C.J. Consumers Knowledge, Understanding and Attitudes Toward Health Claims. American Dietetic Association Annual Meeting. October 16, 1990. (Published as a Refereed Abstract.)

GEIGER, C.J. Miracles of Microparticulation. Utah Dietetic Association Annual Meeting. Salt Lake City, Utah. May 18, 1990.

GEIGER, C.J., Wyse, B.W., Parent, C.R.M., and Hansen, R.G. The Use of Adaptive Conjoint Analysis to Determine the Effect of Nutrition Label Information in Consumer Purchase Decisions. Utah Dietetic Association Annual Meeting. Salt Lake City, Utah. May 18, 1990. (Poster Presentation).

Hobbs, P., Kane, R., Raymond, J., and GEIGER, C.J. Energy Needs in Cystic Fibrosis Patients. Utah Dietetic Association Annual Meeting. Salt Lake City. Utah, May 18, 1990. (Poster Presentation.)

GEIGER, C.J. Simplese: All Natural Fat Substitute. Central Texas Dietetic Association, Temple, Texas. May 11, 1990.

GEIGER, C.J. Update on Nutrition Labeling. Utah Nutrition Council. Salt Lake City, Utah. April 19, 1990.

GEIGER, C.J. The Use of Adaptive Conjoint Analysis to Determine the Most Useful Nutrition Label for Purchase Decisions. Federation of American Societies of Experimental Biology Annual Meeting. Washington, D.C. April 4, 1990. (Published as a Refereed Abstract).

GEIGER, C.J. Fake Fats. South West Memorial Hospital Grand Rounds. In Service. Houston, Texas. March 21, 1990.

GEIGER, C.J. Simplesse: All Natural Fat Substitute. Western Dairy Conference. Billings, Montana. March 15, 1990.

GEIGER, C.J. Dietary Guidelines: Nutrition and Prevention Overview. Medicine and Society Course. University of Utah School of Medicine. Salt Lake City, Utah. February 6, 1990.

GEIGER, C.J. The Use of Adaptive Conjoint Analysis and Market Simulations to Determine The Effect of Nutrition Label Information in Consumer Purchase Decisions. American Dietetic Association Annual Meeting. October 1989. (Published as refereed abstract.)

GEIGER, C.J. and Bodily, S. Herb and Vitamin/Mineral Supplement Usage in Southern California. American Dietetic Association Annual Meeting. October 1989. (Published as refereed abstract.)

GEIGER, C.J. Women as Nutrition Consumers: Effects of Product Marketing on Purchase Decisions. Utah Dietetic Association Annual Meeting. April 25, 1989.

GEIGER, C.J. Fat Substitutes: Panacea or Plethora of Problems. Ninth Annual Nutrition in Contemporary Medicine Symposium, Park City, Utah. March 8, 1989.

GEIGER, C.J. If You Don't Do It, Someone Else Will - What's Happening in Health Promotion. Utah Dietetic Association Quarterly Meeting. February 9, 1989.

GEIGER, C.J. The Use of Adaptive Conjoint Analysis (ACA) to Determine the Most Useful Nutrition Label for Purchase Decisions. The American Dietetic Association Annual Meeting. San Francisco, California. October 1988. (Published as a refereed abstract.)

GEIGER, C.J. The Effect of Graphic Nutrition Information on Consumer Purchase Decisions. Leading Edge Outreach Conference in Nutrition Education: Linking Research and Practice, National Dairy Promotion and Research Board. Utah Dairy Council, University Park Hotel, University of Utah. January 20, 1988.

GEIGER, C.J. Relationship Between Nutrient Intake, Body Mass Index, Menstruating Function and Ballet Injury. The American Dietetic Association Annual Meeting, San Francisco, California. October 1988. (Published as a refereed abstract.)

GEIGER, C.J. Evaluation of Weight Loss Programs. American Heart Association Annual Utah Scientific Sessions, April 3, 1987.

GEIGER, C.J. Update of Current Weight Loss Programs and Supplements. Seventh Annual Nutrition in Contemporary Medicine Symposium, Park City, Utah. March 20, 1987.

GEIGER, C.J. Nutrition Misinformation: Facts, Fallacies and Marketing Strategies. Granite School District Teachers, Salt Lake City, Utah. February 17, 1987.

GEIGER, C.J. Nutrition Education for Future Health Scientists: Challenges and Directions. American Dietetic Association Annual Meeting, Las Vegas, Nevada. October 1986. (Published as invited abstract.)

GEIGER, C.J. Nutrition Labeling: Marketing Research to Meet Consumer Needs. New Frontiers in Dietetics, Ohio State University, Columbus, Ohio, September 12, 1986.

GEIGER, C.J. Marketing of Nutrition Misinformation: Vitamins, Minerals, Herbal and Protein Supplements. Health Education Association of Utah Annual Meeting, Snowbird, Utah, August 6, 1986.

GEIGER, C.J. Moderator. Panel 4. Thought for Food. Utah Women's Well Care Conference, Salt Lake City, Utah, May 9, 1986.

GEIGER, C.J. Combating Unproven Health Practices. Sixth Annual Nutrition in Contemporary Medicine Symposium, Park City, Utah. March 19, 1986.

GEIGER, C.J. Food and Nutrition Misinformation: Fad Diets, Nutrient Supplements and Herbal Remedies. Utah State Department of Health Annual State Policy and Procedures Workshop, Salt Lake City, Utah, October 17, 1985.

GEIGER, C.J. Nutrition and Public Policy. Honor's Health Class - G. Braza, February 1986.

GEIGER, C.J. Energy Balance. The Newcomer's Club of Salt Lake, Salt Lake City, Utah, June 12, 1984.

GEIGER, C.J. Obesity and Fad Diets. Utah State University, Department of Nutrition and Food Science. Logan, Utah. November 1983.

GEIGER, C.J. Update on Clinical Nutrition Controversies. The Utah Dietetic Association Annual Meeting, Salt Lake City, Utah. April 28, 1983.

GEIGER, C.J. Progress in Nutrition Teaching in Medical Education. University of Utah School of Medicine, Salt Lake City, Utah. February 28, 1983.

GEIGER, C.J. Nutrition Teaching in U.S. Medical Schools: The Accreditation Boards. The American Dietetic Association Annual Meeting, San Antonio, Texas, October 20, 1982.

GEIGER, C.J. Moderator and Presiding Officer. Nutrition in the Medical and Dental Curricula. Dietetic Practice Group Session: Dietitians in Medical and Dental Education. The American Dietetic Association Annual Meeting, San Antonio, Texas, October 20, 1982.

GEIGER, C.J. Current Controversies in Coronary Artery Disease: Coping with Uncertainties About Fats and Cholesterol. The Institute of Food Technologists Annual Meeting, Las Vegas, Nevada, June, 1982.

GEIGER, C.J. Moderator. Nutrition Policies and Nutrition Education. The American Dietetic Association Annual Meeting, San Antonio, Texas, October 20, 1982.

GEIGER, C.J. The Role of the Department of Foods and Nutrition of the American Medical Association. Rush University, College of Health Sciences, Section of Clinical Nutrition, Chicago, Illinois, November 16, 1980.

GEIGER, C.J. Main Sources of Calcium/Phosphorus in the Diet: Vegetables and Fruits. Calcium/Phosphorus Workshop, Department of Foods and Nutrition of the American Medical Association. The Drake Oakbrook, Oakbrook, Illinois, November 6, 1980.

GEIGER, C.J. Update: Nutrition in Medical Education. The American Dietetic Association Annual Meeting, Atlanta, Georgia, October 8, 1980.

GEIGER, C.J. Nutrition Education in Medicine - AMA's Viewpoint. Curriculum Development in Applied Nutrition: First Annual Conference. The Department of Health and Human Services and Emory University Medical School, Atlanta, Georgia, September 8, 1980.

GEIGER, C.J. Current Concepts in Nutrition. MacNeal Hospital, Family Practice Residency Program, Oak Park, Illinois, May 16, 1980.

GEIGER, C.J. Conventional and Unconventional Food Habits. Chicago Medical School, Chicago, Illinois, February 8, 1980.

GEIGER, C.J. The Current Status of Nutrition in Medical Education and the Government's Involvement. The American Dietetic Association Annual Meeting, Las Vegas, Nevada, October 24, 1979.

GEIGER, C.J. Moderator and Presiding Officer: Dietetic Practice Group Session: Dietetics in Medical and Dental Education. The American Dietetic Association Annual Meeting, Las Vegas, Nevada, October 24, 1979.

White, P.L. and GEIGER, C.J. Food for Fitness. AMA Auxiliary's Leadership Conference, Annual Meeting, Chicago, Illinois, October 9, 1979.

GEIGER, C.J. Nutritional Assessment of Hospitalized Patients. Ross Laboratories Second Medical Nutrition Research Conference: Nutritional Assessment - Present Status, Future Directions and Prospects, Santa Fe, New Mexico, September 27, 1979.

Montandon, C. and GEIGER, C.J. Moderators: Nutritional Assessment Techniques: Use and Implementation in Medical Education. American College of Nutrition Annual Meeting, Council on Medical Education, St. Louis, Missouri, June 8, 1979.

GEIGER, C.J. Obesity, Fad Diets, and How to Eat Nutritiously in Fast Food Restaurants. Loyola Medical School, Chicago, Illinois, May 14, 1979.

GEIGER, C.J. The Dynamic Field of Dietetics and Job Opportunities. East Carolina University, School of Home Economics, Greenville, North Carolina, April 2, 1979.

GEIGER, C.J. Current Status of Nutritional Assessment in the United States. Academy of Sciences at Philadelphia, Philadelphia, Pennsylvania, December 13, 1979.

White, P.L., Young, E.A., and GEIGER, C.J. Moderators: Medical Nutrition of the American Medical Association. Nutrition Education Workshop, Chicago, Illinois, November 7, 1978.

GEIGER, C.J. Nutrition Education - Whose Responsibility? The American Association of University Women Annual Regional Meeting, Elmhurst, Illinois, October 28, 1978.

White, P.L., Long, J., Crocco, S., and GEIGER, C.J. Chewing the Fat: A Rap Session. American Medical Association Physician Regional Seminar, Portsmouth, New Hampshire, September 29, 1978.

GEIGER, C.J. Current Concerns in Nutrition: Feeding the Developmentally Retarded Child. Chicago Reed Center, Chicago, Illinois, August 9, 1978.

GEIGER, C.J. A Nutritional Content Study of the Ohio State University Undergraduate Medical School Curriculum. American College of Nutrition Annual Meeting, Minneapolis, Minnesota, June 1, 1978.

6. Coursework/Inservice:

1990 Personnel Administration Training Program, U. of Utah
1985 Health Education 650R-1 Grant Writing

UNIVERSITY AND PUBLIC SERVICE:

1. University Committees:

1990 - 1991	Advisory Committee Instructional Media Services
1989 - present	Liberal Education
1989 - present	Health Sciences Curriculum Representative
1989 - 1990	Health and Wellness / Short Course Advisory Committee
1988 - 1990	Academic Evaluation and Standards

2. College Committees:

1988 - present	College of Health Development Board
1989 - 1990	Facilities Planning Committee
1988 - present	Golf Tournament Volunteer
1985 - present	Dean's Advisory Council
1985 - 1990	Curriculum Committee
1988 - 1990	Chairperson
1989 - 1990	Health Sciences Curriculum Committee
1985 - 1988	Division Representative for Well Care
1985 - present	Tenured Faculty Review Committee
1985 - present	Differentiated Pay Committee
1986 - 1987	Division Representative for the Kellogg Grant
1985 - 1986	Health, Fitness and Lifestyle Management Curriculum Update

3. Division Committees:

1988 - present	Director, Coordinated Master's Program In Dietetics
1985 - present	Director, Graduate Program
1987 - 1989	Accreditation Coordinator
1986 - present	Division Director
1986 - 1987	Member 8th Annual Nutrition in Contemporary Medicine Planning Committee
1985 - 1990	Plan IV Program Representative to the American Dietetic Association
1985 - 1989	Faculty Advisor - Omicron Nu Honor Society
1985 - 1986	Curriculum Coordinator

1985 - 1986	Chairperson - Search Committee - Assistant Professor/Nutrition Scientist Position
1985 - 1986	Chairperson - Search Committee - Assistant Professor/Food Service Management Position
1985 - 1986	Chairperson - Search Committee - Division Director
1985 - 1986	Clinical Coordinator
1985	Coordinator for Consultant Visit (Dr. Sachiko T. St. Jeor)
1984 - 1987	Faculty Advisor - Student Advisory Committee
1983 - 1986	Curriculum Committee

4. Professional Societies:

1991 - present	Federation of the American Society for Experimental Biology American Institute of Nutrition
1990 - present	The American Marketing Association
1989 - present	The Society for Nutrition Education
1981 - present	The Utah Dietetic Association
1982 - present	The Institute of Food Technologists
1983 - present and 1978 - 1980.	The Society for Nutrition Today
1978 - present	The American Society for Parenteral and Enteral Nutrition
1978 - 1981	The Chicago Dietetic Association
1978 - 1981	The Chicago Nutrition Association
1976 - 1978	The Columbus Dietetic Association
1975 - 1976	The Richmond Dietetic Association
1975 - present	The American Dietetic Association
1974 - present	Omicron Nu

5. Professional Committees and Positions Held:

The American Dietetic Association

1990 - present	Abstract Reviewer for 1990;1991;1992 Annual Meetings
1989 - 1990	National Nominating Committee
1989	Commission on Dietetic Registration - National Registration Exam Item Writer

1989 - present	Nutrition Research Dietetic Practice Group
1990 - present	Secretary
1986 - present	Dietetic Educators of Practitioners
1986 - present	Nutrition Education for the Public
1980 - present	Dietitians in Business and Industry
1980 - 1981	Newsletter Committee
1979 - 1982	Advisory Committee - National Council on Practice
1979 - present	Dietitians in Medical and Dental Education
1979 - 1982	Chairperson: Dietetic Practice Group
1979 - 1982	Chairperson - Program for ADA Annual Meeting
1979	Advisory Committee on the Revision of the Dietetic Registration Exam

The Utah Dietetic Association

1989 - 1990	Annual Meeting Committee
1989 - 1990	Public Relations Committee - Advisor
1987 - 1988	Past President
1985 - 1988	Long-Range Planning Committee
1986 - 1987	President
1985 - 1988	Bylaws Committee
1985 - 1986	President - Elect
1984 - 1988	Board of Directors
1984 - 1988	Annual Meeting Committee
1984 - 1986	Licensure Committee - Bill Passed in 1986 Legislative Session
1983 - 1988	Awards Committee
1983 - 1984	Public Relations Committee
1982 - 1985	Chairperson - Education Development Committee

Utah Nutrition Council

1985 - present	University of Utah Representative
----------------	-----------------------------------

Utah Hospital Association

1986 - 1987	Association Services Council
-------------	------------------------------

The Utah Medical Association

1987 - present Diet Evaluation Committee

1985 - present Committee on Unproven Health Practices

The Utah Heart Association

1984 - 1985 Chairperson - Public Relations - Nutrition Committee

1983 - 1985 Nutrition Committee

Chicago Nutrition Association

1980 - 1981 Board of Directors

1980 Chairperson - 1980 Target Nutrition - First Nutrition Fair for Chicago

1980 - 1983 Board of Directors

1979 - 1980 Newsletter Committee

American College of Nutrition

1978 - 1980 Council on Medical Education - Program Planning

Chicago Dietetic Association

1980 Chairperson - Tellers Committee

1979 - 1980 Newsletter Committee

Columbus Dietetic Association

1977 - 1978 Dial-A-Dietitian Committee

American Home Economics Association (at the UNC - Greensboro)

1974 - 1975 Committee Chairperson - Senior Picnic

1972 - 1973 Committee Chairperson - Spring Honors Banquet

1972 - 1973 Committee Chairperson - Service Committee

Omicron Nu at the UNC - Greensboro

1974 - 1975 Chairperson - Spring Initiation Dinner

6. Public Service:A. State Offices

1990 - present Dietitians Board
Division of Occupational and Professional Licensing

1991 - present Chairperson

1989 - present Subject Matter Specialist
Cancer Information Service
Utah Regional Cancer Center

B. Community OfficesCommunity Services Council

1989 - present 1st Vice President
 1990 - present Food Bank Committee
 1988 - 1989 2nd Vice President
 1986 - present Board of Directors

Governor's Council on Fitness and Health

1986 - 1987 Review Board for Media Pamphlet

C. Selected Media Presentations

January 27	1992	Channel 5. Evening News. Nutrition Labeling. Cindy Burns.
January 25	1992	Channel 13. Fox TV. Nutrition Labeling Proposed Regulations.
April 8	1990	Channel 2. Take Two. Dieting and Weight Loss. Rod Decker.
March 26	1990	Channel 2. Evening News. Very Low Calorie Diets. Sarah Harlow.
March	1990	Channel 2. Evening News. Fast Foods. Sarah Harlow.
November	1989	Channel 7. Civic Dialogue. Nutrition Labeling and Health Claims. Ted Capner.
July 31	1988	KALL Radio. Nutrition Update. Randy Kerdoon.
November	1986	Channel 5. Special Presentation. Obesity - 5 nights. Jeff Sanstack.
October	1986	Channel 4. Sugar Controversy Surrounding New FDA Report. Fred Fife.
February 18	1986	KTALK - Live Talk Show. Nutrition Potpourri. Jim Debacchus.
January 24	1986	KTALK - Live Talk Show. Herbs and Weight Control. Jim Debacchus.
November 5	1985	<u>The Daily Utah Chronicle</u> . Lifelong Drinking Patterns Often Start in College. Interviewed by Marva Bickle. Volume 95 #35.
September 12	1985	KTALK - Live Talk Show. Vitamins and Potential Overdoses. Jim Debacchus.
September 3	1985	KDYL - Live Talk Show. Food Safety. Diane Fitzgerald.

Other appearances in print and electronic media in Chicago, Illinois.



CURRICULUM VITAE

ELLEN SCHUSTER

OFFICE ADDRESS

University of Minnesota
Department of Food Science and Nutrition
Room 167
1334 Eckles Avenue
St. Paul, MN 55108
(612) 624 - 7479

HOME ADDRESS

4486 Arden View Court
Arden Hills, MN 55112
(612) 639 - 1478

EMPLOYMENT

Instructor and Assistant Professor, State EFNEP
Coordinator, April 1985 - Present
Expanded Food and Nutrition Education Program,
Minnesota Extension Service

Assess program management, delivery and subject matter needs of EFNEP staff; plan, coordinate, implement and evaluate training/materials appropriate for paraprofessional staff; plan, coordinate and implement trainings/meetings of EFNEP professionals; provide program direction; collect, analyze and disseminate EFNEP impact data; represent EFNEP within the Minnesota Extension Service and to legislators, agency staff.

Area Home Economist - Food and Nutrition, March 1982 - March 1985

Clark County Cooperative Extension Service, Nevada
Cooperative Extension Service

Conducted nutrition education programming in Southern Nevada - both urban and rural audiences; recruited, trained, supervised volunteers; planned, coordinated and implemented Southern Nevada's first Nutrition Advisory Council; implemented computers in nutrition education; supervised and trained a program assistant as well as EFNEP paraprofessional staff; developed nutrition education materials for adults and youth; participated in media programs for educational purposes.

EDUCATION

M.S., Nutrition, 1982, University of Massachusetts,
Thesis: Nutrition Education in the Health Maintenance
Organization: February 1982

B.A., Home Economics and Consumer Studies, 1979, City
University of New York - Concentration: Foods and Nutrition,
Minor: Psychology

**PROFESSIONAL
MEMBERSHIPS**

American Dietetic Association: 1982 to present
Registered Dietitian: 1982 to present
PHNPG: 1988 to present

American Home Economics Association: 1979 to present
Certified Home Economist: 1987 to present

Minnesota Nutrition Council Against Health Fraud: 1985 to present; Treasurer: 1987 to 1988

Minnesota Dietetic Association: 1985 to present

Minnesota Home Economics Association: 1985 to present;
District 11k Treasurer: 1988 to present; Annual Meeting
Planning Committee: 1987

Minnesota Nutrition Council, Inc.: 1985 to present;
Education Planning Committee: 1988; In-Coming Public Affairs
Co-Chair: 1988 to present

National Association of Extension Home Economists: 1982 to 1985; Chairperson: Nevada Professional Improvement
Committee: 1983; Chairperson: Nevada Research and Studies
Committee: 1984

Society for Nutrition Education: 1982 to present

Southern Nevada Dietetic Association: 1982 to 1985

Twin Cities District Dietetic Association: 1985 to present; Co-Chairperson: Legislative and Public Policy
Committee: 1986; Chairperson: 1987 - 1988

**NATIONAL
PUBLICATIONS**

EFNEP: Education Connection for the Hungry - Extension Review, Volume 58, Number 2; Spring 1987

Review of nutrition article - Journal of Nutrition Education, Volume 19, Number 3; 1987

Review of nutrition article - Journal of Nutrition Education, Volume 18, Number 2; 1986

A Program on Snacking for Grades 3 - 6 - Journal of Nutrition Education, Volume 18, Number 4; 1986

Be A Snackbuster! - Extension Review, Volume 56, Number 2; Spring 1985

MINNESOTA
EXTENSION
SERVICE
PUBLICATIONS

1990 Extension Home Economics Annual Report (co-authored with Linda Bradley) - 1990

Low Literacy Programming and Extension: Implications - Extension Home Economics Specialist Newsletter; July 1990

Food Guides and Dietary Recommendations -- A Review - Extension Home Economics Specialist Newsletter; December 1989

EFNEP: Better Nutrition Through Education - Extension Home Economics; 1989

Time For Snacks - Young Families Newsletter; January - February 1988; Solid Foods for Babies - Young Families Newsletter; July - August 1988; Nutritious Snacks - Young Families Newsletter; July - August 1987; Helping Prepare Food - Young Families Newsletter; March - April 1987; Vitamins and Minerals (cont.) - Young Families Newsletter; November - December 1986; Vitamins and Minerals - Young Families Newsletter; September - October 1986

Articles for Extension Home Economics Dimensions; 1985 to present

Retention and Knowledge in EFNEP - Extension Home Economics Specialist Newsletter; August 1987

FYI: Hunger and Education - The Connection - Extension Home Economics; 1986

How to Get a Calcium Boost (11/85); Review: Dr. Abravanel's Body Type Diet and Lifetime Nutrition Plan (4/86); Anti-biotics in Meat: Why All the Fuss? (7/86) - HERBERT Electronic Bulletin Board - Minnesota Extension Service

The Minnesota EFNEP Impact Study - Extension Home Economics Specialist Newsletter; November 1985

Minnesota Dietetic Association Fall Meeting - October 14 & 15, 1988

PDMS Environmental Scanning Workshop - Extension Home Economics, MES - July 18, 1988

Introduction to Techlab - Telecommunications Development Center - July 14, 1988

Specialist Retreat - Extension Home Economics, MES - April 20, 1988

Home Economics Mgmt. Team Retreat - July 7 & 8, 1988

Agent Specialization Training - Heart Health - Extension Home Economics, MES - May 10 - 13, 1988

State WIC Conference - Group Education - MN Dept. of Health - April 27 - 29, 1988

Extension in the Big Cities Conference - North Central Region, MES - April 26 - 28, 1988

Leading Edge in Research Conference - National Dairy Council - April 21 & 22, 1988

American Dietetic Association Legislative Conference - March 20 - 22, 1988

Professional Image Workshop - CareerTrack - January 27, 1988

SERVICE

Display - University of Minnesota Department of FScN Advisory Council Meeting: November 1990

Member - EFNEP Advisory Committee - 1990

Chair - EFNEP Alternative Funding Committee - 1990

Member - Food First Coalition - 1989 to present

Member - National Extension Committee on Reaching Limited Resource Audiences: 1990 to 1991

Member - FAN Forum EDT III: July 1989 to present

Member - Work and Family Connections State Task Force (MES): July 1989 to present

Mentor - MHEA: 1989 to 1990

Member - Food, Agriculture and Nutrition Food Access Planning Committee: 1988 to present

Member - Search Committee for Hennepin County CEA: 1988

Chairperson - Search Committee for Acting Home Economics
Program Leader: 1988

Member - National EFNEP Task Force: 1988 to present

Member - Planning Committee for International Federal for
Home Economics Pre-Congress Workshop - FScN 0660: 1988

Member - Search Committee for Events Specialist: 1988

Member - Children's Health Plan - MN Dept. of Human
Services: 1988 to present

Member - Extension Mgmt. Unit (EMU - Dept. of FScN):
1985 to present

Member - Home Economics Mngt. Team: 1985 to present

GRANTS
SUBMITTED

NIH, DHHS, PHS (1990) - Evaluation of Low Literacy CVD
Nutrition Education: submitted.

NERAC, Dairy Council (1988) - Low Fat Nutrition Education:
not accepted.

TDC (1987) - Development of Audio Cassette Lessons from
ERIB2: accepted.

GRADUATE
CLASSES
COMPLETED
SINCE DEGREE

Adolescent Nutrition - Pub Hlth 5935 (Spring 1988)
Extension Administration (Fall 1986)
Instructional Design - HeEd 5244 (Summer 1986)
Evaluation of Extension Programs - HeEd 5247 (Fall 1985)

MEDIA

WCCO Segment - December 5, 1990
EFNEP

Chuck Lilligren Radio Show - October 27, 1988
EFNEP

Kate McEnroe Radio Show - August 14, 1988
Child Nutrition

CONSULTANT

Reviewer - Journal of Nutrition Education: 1986 to present



Susan A. Nitzke, R.D., Ph.D.
Assistant Professor, Nutritional Sciences
University of Wisconsin-Madison
1415 Linden Drive, Madison, WI 53706

EDUCATION

- Ph.D. from UW-Madison Dept. of Nutritional Sciences, 1986
- Thesis title -- "Development of Nutrition Education Methods and Prototype Materials for Low Literacy Adults"
- Minor -- Continuing and Vocational Education

EMPLOYMENT HISTORY

- Assistant Professor and Extension Specialist, Department of Nutritional Sciences, UW-Madison, 1/87 - present
- Interim Specialist, Lecturer and Project Supervisor, UW-Madison/Extension, 1982-86
- Nutrition Scientist, Technical Services Dept., Krause Milling Company, Milwaukee, WI, 3/75 - 12/78
- Nutritional Sciences Resources Specialist, Mead Johnson Research Center, Evansville, IN, 2/73 - 1/75

AWARDS

- Wis. Assoc. of Extension Home Economists Team Effort award, 1992.
- Agricultural Communicators in Extension video award, 1987.
- General Foods Graduate Fellowship in Nutrition Education, 1985-86
- Vilas Graduate Fellowship, 1986
- H.B. Goessling Scholarship, Leadership scholarship, University League scholarship, tuition scholarships, Sigma Epsilon Sigma, Phi Kappa Phi

MEMBERSHIPS

- Society for Nutrition Education (currently chair, Food and Nutrition Extension Educators Division and candidate for Nominating Committee, Midwest)
- Institute of Food Technologists (currently editor, Nutrition Division and candidate for Secretary, Nutrition Division)
- American Society for Clinical Nutrition (associate member)
- American Institute of Nutrition (associate member)
- American Dietetic Association, Wisconsin Dietetic Association, and Madison District Dietetic Association
- Sigma Xi

PUBLISHED MATERIALS

Refereed journals

Nitzke, S., A. Harwood, and W.L. Way. Development of an instrument to assess critical thinking constructs in nutrition audiovisual materials. Journal of Nutrition Education IN PRESS.

Nitzke, S. 1989. Improving the effectiveness of nutrition education materials for low-literacy clients. Nutrition Today 24(5):17-23.

Nitzke, S.A. and S.P. Athens. 1987. A snapshot summary of nutrition education research in progress. Journal of Nutrition Education 19:266-7.

Aderman, B., S. Nitzke, S. Pingree, and J. Voichick. 1987. Readers' responses to language experience approach materials. Adult Literacy and Basic Education 11(1):13-27.

Nitzke, S., B. Aderman, J. Voichick, S. Pingree, and A. Shaw. 1986. Developing materials for low-income, low-literacy adults. Journal of Nutrition Education 18:226B-C.

Way, W.L. and S.A. Nitzke. 1981. Ideas for nutrition education and some pertinent research. Illinois Teacher. 25:21.

Submitted articles

Nitzke, S. and J. Voichick. Contributions of Critical Thinking and Adult Literacy Frameworks to Nutrition Education (manuscript number 2381A, currently under review). This was prepared in response to a special invitation from editors of the Journal of Nutrition Education for a special issue to be distributed in honor of the society's 25th anniversary at the 1992 annual meeting.

Nitzke, S., J. Voichick, and D. Helgeson. Weight cycling practices and their long term health effects in a sample of former collegiate athletes. Manuscript number F21, currently under review by Athletic Training, JNATA.

Plavcan, P., W. Way, S. Nitzke, and R. Steele. Examination of an integrated approach to teaching nutrition and critical thinking. Submitted to Journal of Home Economics, Jan. 1992.

Other professional publications

Nitzke, S. 1991. School nutrition programs: Nutrition in a Fishbowl. IFT Nutrition Division Newsletter volume 13, number 1, page 2.

Nitzke, S. 1991. Food groups: Which system is which? IFT Nutrition Division Newsletter volume 12, number 3, pages 6-7.

Nitzke, S. 1991. Preliminary results of USDA's diet and health knowledge survey. IFT Nutrition Division Newsletter volume 12, number 2, pages 5-6.

Nitzke, S. 1990. Food Consumption Trends. IFT Nutrition Division Newsletter, volume 12, number 1, pages 5-6.

Nitzke, S. 1990. Nutrition Information Preferences of Two Types of Consumers. IFT Nutrition Division Newsletter, volume 11, number 3, pages 5-6.

Nitzke, S. 1990. Keeping Up with Official Recommendations. IFT Nutrition Division Newsletter, volume 11, number 2, pages 6-8.

Nitzke, S. 1989. Consumer's corner. IFT Nutrition Division Newsletter, volume 11, number 1., pages 11-12.

Nitzke, S. 1988. Dietary guidelines: Where do we go from here? The Wisconsin Dietitian January 1988, page 15.

Nitzke, S. 1988. Research in review: D-I-E-T is a 4-letter word! Bodyfit volume 1, number 1, page 2.

Extension publications

Buege, D. and S. Nitzke. 1991. Nutrient Composition of Game Meats. Wisconsin Meat Facts and Analysis.

Buege, D. and S. Nitzke. 1990. Comparison of the Nutrient Composition of Meat Cuts. Wisconsin Meat Facts and Analysis.

Maurer, A., S. Nitzke, and D. Buege. 1990. Nutrient Composition of Game Birds. Wisconsin Poultry Facts and Analysis.

Nitzke, S. and S. Walker. "Tots at the Table" 1991. (This is a series of six bi-monthly newsletters for parents and caregivers of three and four year old children that is being distributed by county extension offices statewide; it has been reviewed by Extension faculty in other states and approved as a Northcentral regional publication to be distributed by Extension offices in at least six states).

Nitzke, S., M. McIntosh, and J. Greger. 1990. Handbook on Cholesterol, Fats and Coronary Heart Disease. Bulletin BNEP5, University of Wisconsin-Extension.

Nitzke, S. 1990. Nutrition needs of elderly (set of charts with demographic and survey data) in Young, R. (ed.) Wisconsin's Elderly, UW-Extension, Family Living Education.

Nitzke, S., M. Mennes, J. Voichick, and K. Kedrowski. (1986, 1988, and 1991), Resource Guide in Food Science and Human Nutrition. UW-Extension Family Living Education.

Nitzke, S. Vitamin and Mineral Supplements Bulletin number B3407, 1987.

Nitzke, S. FOODLINES (a series of Extension Fact Sheets distributed statewide by Extension Home Economists, 1989-91): Don't Forget Exercise; Brown Bag Checklist; Planning for Snacks; Eating Right...The Dietary Guidelines Way -- Lower the Fat; Eating Right...The Dietary Guidelines Way -- Eating Out is In; Enjoying the New "Power Lunch"; Planning Menus at Home...The Dietary Guidelines Way; How to Eat and Run...The Dietary Guidelines Way; How to Shop Smart...The Dietary Guidelines Way: How to Read Between the Labels...The Dietary Guidelines Way; Attacking Snacking...The Dietary Guidelines Way; Oats and Cholesterol; Very Low Calorie Diets; Take a Weight Off Your Heart; High Blood Cholesterol: Is Your Number Up?; Heart Owner's Guide; BST -- Safe or Sinister?; Breakfast Gives a Boost; Nutrient Composition of Game Birds; and Nutrient Composition of Game Meats.

"Starch and Fiber: Facts and Fiction" 1989; "Eating Right (Less Fat in the Diet): It's Easier than You Think" 1988; "Cooking Smarter with Convenience Foods" 1986; "How to Save Time in the Kitchen without Spending a Fortune" 1986. (These are packets of educational materials for statewide faculty to use in group nutrition programs, including outlines, resources, handout masters, overhead masters, evaluation tools, press releases, and background technical information.)

Invited papers in conference proceedings

Nitzke, S.A. 1989. Reaching adults with limited reading skills with nutrition materials: Research into practice. in Nutrition Education Opportunities: Strategies to Help Patients with Limited Reading Skills, Second Ross Roundtable on Current Issues in Public Health. Columbus, OH: Ross Laboratories, pages 12-20.

Nitzke, S. 1987. Reaching low-literacy adults with printed nutrition materials. The Leading Edge in Nutrition Education: Research Enhancing Practice. Proceedings of the National Conference on Nutrition Education Research. Journal of the American Dietetic Association. 87(9): Supplement: 573-7.

Books/monographs

Nitzke, S.A. Study Guide to Accompany Nutrition for Living third edition. Menlo Park, CA: The Benjamin/Cummings Publishing Company, 1991.

Nitzke, S.A. Instructor's Guide to Accompany Nutrition for Living third edition. Menlo Park, CA: The Benjamin/Cummings Publishing Company, 1991.

Nitzke, S.A. Study Guide to Accompany Nutrition for Living second edition. Menlo Park, CA: The Benjamin/Cummings Publishing Company, 1988.

Nitzke, S.A. Instructor's Guide to Accompany Nutrition for Living second edition. Menlo Park, CA: The Benjamin/Cummings Publishing Company, 1988.

McConnell, E.A. and L.W. Lewis. Lippincott's State Board Review for NCLEX-RN Philadelphia: J.B. Lippincott Co, 1990. Susan Nitzke was the contributing author for nutrition in this guide for nurses studying for qualifying/credentialing exams. This book won the American Journal of Nursing's 1990 "Book of the Year" award.

Nitzke, S., A. Shaw, S. Pingree, and S.J. Voichick. 1986 Writing for Reading: Guide for Developing Print Materials in Nutrition for Low Literacy Adults. Madison, WI: University of Wisconsin-Extension.

Way, W.L. and S.A. Nitzke. 1981. Techniques for Meeting Nutrition Education Needs. Washington, DC: Home Economics Education Association.

Abstracts

Bayard, B., S. Nitzke, and D. Nuhlicek. A prototype problem-based learning module is effective for teaching nutrition and cancer concepts to pre-clinical medical students. To be presented at FASEB annual meeting, Anaheim, CA: 1992.

*Nitzke, S. Weight fluctuations and health in former wrestlers. Oral presentation at Society for Nutrition Education annual meeting, Miami, FL: 1991.

*Nitzke, S. An instrument to assess critical thinking components in audiovisual materials. Oral presentation at Tenth International Conference on Critical Thinking and Educational Reform. Sonoma State University, CA: 1990.

*Plavcan, P., W. Way, S. Nitzke, and R. Steele. Effect of teaching critical thinking in a nutrition course. Oral presentation at Society for Nutrition Education annual meeting, Anaheim, CA: 1990.

*Nitzke, S.A., W.L. Way, and A. Harwood. Development of an instrument to assess attention given to critical thinking components in nutrition audiovisuals. Poster at American Home Economics Association annual meeting, San Antonio, TX: 1990.

*Way, W.L., A. Harwood, and S. Nitzke. Identification of components of audiovisual nutrition education materials related to the development of critical thinking skills and abilities. Poster at American Vocational Association annual meeting, Orlando, FL: 1989.

Videotapes

Nitzke, S., G. Green, and A. Lambrecht. 1991. "Thinking about Fat and Children's Diets" (This is an innovative videotape with a corresponding instructor's guide that is used to promote critical thinking among parents and caregivers about whether and how to control the amount of fat that is in the diet of children in their care.)

Gibson, C., S. Nitzke, C. Welch, and M. Thompson. 1990. "Nutrition Education in Small Groups: Developing a Learning Community." (This is a videotape and book that are used together as a professional development program for nutrition educators.)

Nitzke, S. and D. Buege. 1988. Meaty Matters. The Nutritional Contribution of Meat to the American Diet. This video won a national award from the Agricultural Communicators in Education (ACE) at their national conference in Portland, OR in July, 1989.

TEACHING ACTIVITIES

Nutritional Sciences 600 -- Introductory Seminar in Nutrition. The candidate has co-taught this 1-credit course for beginning graduate students in our department for the past three years.

N.S. 993 -- Nitzke supervised 3 credits of independent study for 2 students interested in nutrition education.

Nitzke participated in oral examinations for research proposals, preliminary general knowledge exams, and final examinations for 6 graduate students (Barrett 1991, Schoff 1991, Plavcan 1991, Kaisaki 1990, Harwood 1990, Lai 1990).

When Nitzke was an academic staff member of the department and a graduate student, she taught the following courses:

N.S. 132	"Nutrition Today" 3 credits, Summer 1983 and 1985
N.S. 350	"Causes of World Hunger and Malnutrition" course coordinator for an interdisciplinary course, 3 credits, Spring 1983
C.A.V.E. 609	"Nutrition Education" 1 credit, Summer 1982
N.S. 375	"Computer Applications in Nutrition" 1 credit, summer 1982
N.S. 422	"Nutrition Education for Teachers" 2 credits, Spring 1979

CURRICULUM VITAE-ABBREVIATED

SUSAN G. HADDEN

Intelligent Advisors, Inc.
2400 Westover Road
Austin, Texas 78703
512-474-7620 or 474-4719
Fax: 512-471-1835

Susan G. Hadden is a Professor in the LBJ School of Public Affairs, The University of Texas at Austin. She holds a B.A. degree from Harvard and Radcliffe Colleges and a Ph. D. in political science from the University of Chicago. She is the author of two books on use of technical information to reduce risk: Read the Label: Providing Information to Reduce Risk and A Citizen's Right to Know: Risk Communication and Public Policy. She has also published more than 50 refereed articles on product labeling and risk communication, use of technical information by laypeople for decisionmaking, and risks to human health and the environment. She has worked extensively on presenting technical information for lay audiences, consulting with industry, government, and citizens' groups. She serves on the advisory group of the Environmental Protection Agency concerning labeling of CFCs under the 1990 Clean Air Act.

EDUCATION

B.A. (cum laude in General Studies), Harvard and Radcliffe Colleges 1966

M.A. (Political Science), University of Chicago 1968

Ph.D. (Political Science), University of Chicago 1972

EMPLOYMENT

Professor, LBJ School of Public Affairs, The University of Texas at Austin, 1990-

--Associate and Assistant Professor, 1979-90

Research Associate, Southern Center for Studies in Public Policy, Clark College, Atlanta
Georgia, 1974-79

Assistant Professor, Oakland University, Rochester, Michigan, 1972-74

PERSONAL DATA

Born: June 4, 1945

Married to W. James Hadden, Jr., Ph.D.

Two children: Lucy Elsbeth (born February 24, 1971)
W. James Hadden IV (born May 28, 1974)

SELECTED PUBLICATIONS

- "Public Perception of Hazardous Waste" Risk Analysis, ~~forthcoming~~ 1991.
- "Labeling as Advertising," in Jack P. Lipton and Bruce D. Sales, eds. Advertising, Law, and the Social Sciences, (New York: Pergamon Press, forthcoming 1991).
- "Regulating Product Risks through Consumer Information" Journal of Social Issues, ~~forthcoming~~ 1991.
- "Working with the Public" in Andrew Davis, ed. Emergency Response and Hazardous Chemicals: A Manual for Physicians, Chicago: American Medical Association, forthcoming 1991.
- Risk Communication for Local Government Officials, (with Barry Bales). EPA and 4 agencies, October 1989.
- "Providing Citizens with Information about Health Effects of Hazardous Materials," Journal of Occupational Medicine, 31:6 (June 1989): 528-534.
- A Citizen's Right to Know: Risk Communication and Public Policy Boulder: Colo.: Westview Press, 1989.
- "Transportation of Hazardous Materials," (with Leigh Boske) Health and Environment Digest, (January, 1989).
- "Institutional Barriers to Risk Communication," Risk Analysis, September 1989.
- Read the Label: Reducing Risks by Providing Information Boulder, Colo.: Westview Press for the American Association for the Advancement of Science, 1986.
- Risk Analysis, Institutions, and Public Policy, Susan G. Hadden, ed. (Port Washington, N.Y.: Kennicutt Press, January 1984) (Includes Susan G. Hadden, "Risk Policy in American Institutions").
- "State Roles in Siting Hazardous Waste Disposal Facilities," (with Joan Veillette and Thomas Brandt), in James P. Lester and Ann O'M. Bowman, eds., The Politics of Hazardous Waste Regulation (Durham: Duke University Press, 1983).
- "Technical Information for Citizens," Journal of Applied Behavioral Science 17:4 (October 1981), pp. 537-49.
- "Designing a Citizen Participation Program for High-Level Nuclear Waste Disposal Siting Decisions," in Hadden, et al., Consultation and Concurrence: Institutional Innovation for High-Level Nuclear Waste Disposal Policy, Department of Energy/FG46608-1, May 1981.
- "DES and the FDA" in Dorothy Nelkin, ed., Controversy (Beverly Hills: Sage Publications, 1979), revised and updated (Beverly Hills: Sage Publications, 1984).
- "Regulation of Recombinant DNA Research" in John Richards, ed., Science, Ethics, and Politics: The Recombinant DNA Debate (Academic Press, 1978).

SELECTED REPORTS

Transportation of Hazardous Materials in Texas, Vols I and II. Reports to the Texas State Highway Department. Leigh Boske and Susan G. Hadden, Directors. Austin. 1987. 1988.

Regulating Pesticides in Texas. Pesticides and Worker Health in Texas. Reports to the Texas Department of Agriculture by the LBJ School Policy Research Project on Pesticide Regulation in Texas. Susan G. Hadden and Thomas O. McGarity, Directors. Austin. 1984.

Siting of Hazardous Waste Disposal Facilities. Report to the Subcommittee on Hazardous Waste Disposal Facility Siting of the Texas House Committee on Environmental Affairs by the LBJ School Policy Research Project on Hazardous Waste Disposal, directed by Susan G. Hadden (Austin: LBJ School of Public Affairs, July 1982).

Public Policy Response to Risks to Health, Safety and the Environment. Report of the Policy Research Project on Public Policies Toward Risk. 1979-80 (editor).

Environmental Regulations and the Chemical Industry. Report to Velsicol Chemical Company, Susan G. Hadden, Richard S. Howe, Gerard A. Rohlich, Project Directors.

Making the Best of Right to Know: A Handbook for Citizens, LEPCs, and SERCs" (pamphlet, March 1988).

"Citizen right-to-know requests." Report to the New Jersey Department of Environmental Protection, the New Jersey Department of Health, and the Massachusetts Department of Environmental Quality Engineering. January 27, 1988.

"Environmental Protection and Economic Development in India" (Lyndon B. Johnson School of Public Affairs Working Paper No. 30, October 29, 1984).

"Introduction to Operations Research and Decision Analysis." (with Chandler Stolp). Materials for Operations Research class. 1985.

Handbook for State Board Members, prepared for Governor Clements of Texas (with Lynn Anderson) (Austin: Office of the Governor, 1981). A manual for appointees to state boards about state government and the rights and duties of board members.

SELECTED PROFESSIONAL ACTIVITIES

Member

Society for Risk Analysis
Association for Public Policy Analysis and Management
Policy Studies Organization
American Association for the Advancement of Science (elected to national section
nominating committee, 1990-92)

Book manuscript reviewer for

Congressional Quarterly Press
American Association for the Advancement of Science
Rutgers Center for Urban Studies

Journal article reviewer for

American Political Science Review
Journal of Policy Analysis and Management
Policy Studies Review (associate editor, 1985-90)
Science

Book reviews in American Political Science Review, Environment, Journal of Consumer
Affairs, Science, Journal of Social Issues, Journal of Comparative Social Studies,
Journal of Health Politics

Product Labeling and Information

- Member, Environmental Protection Agency Advisory Committee on CFC Labeling
- Consultant to industry group on federal labeling legislation
- Six invited and several presented papers on product labeling at professional meetings
and at special forums around the nation.
- Invited participant, Workshop on Risk Management, held by Committee on Risk and
Decision-Making, National Research Council, October 31, 1980.

Risk Communication and Risk Policy

- Member, Steering Committee, Texas Risk Communication Project, 1987-1989
- Member, Community Panel, Chemical Manufacturers Association Industry Emissions
Control Project, 1989-
- Invited testimony for several government agencies.
- Tester for (prerelease) Toxic Release Inventory Database, U.S. EPA, May 1989
- More than 30 invited talks to professional societies, citizens groups, and industry
associations on a range of risk communication topics and SARA Title III.
- Work with six companies to develop risk communication/public outreach programs

Science Policy

- National Science Foundation Ethics and Values Studies Advisory Panel, 1987-89
- Several activities relating to American Association for the Advancement of Science program on graduate education in technology and policy .
- Review panel, Second Five-Year Outlook for Science and Technology (Washington, D.C., National Science Foundation, 1981). Other NSF activities on First Five-Year Outlook.
- Advisory Committee on Science for Citizens Program, National Science Foundation, 1977, 1978.
- Numerous presented papers at professional meetings.

Intelligent Advisory Systems/Expert Systems

- Seven invited papers.
- Contracts from five government agencies to build IASs.

FELLOWSHIPS, SCHOLARSHIPS AND GRANTS

- University Research Institute Faculty Research Leave, Fall 1987
- Steven H. Spurr Centennial Fellow, 1986-87
- Southwestern Bell Telephone 1990-91
- Futuretrends, Inc., 1988-89
- Chemical Manufacturers Association, 1988
- Environmental Protection Agency Cooperative Research Grant, 1988-89
- Environmental Protection Agency Cooperative Research Grant, 1989-90
- Texas Department of Highways and Transportation, 1986-88
- Texas Foundation for Women's Resources
- Texas Committee on the Humanities
- MetroAustin 2000

PUBLIC SERVICE

Member, Travis County LEPC, 1987-present. Chairman of 2 subcommittees.
Member, Steering Committee, Texas Risk Communication Project, 1987-89
Member, Comprehensive Plan Steering Committee (City of Austin), 1986-88.
Member, Environmental Board, City of Austin, 1981- 1984

February 1992

CURRICULUM VITAE

J. (Joseph) Edward Russo

Address

Johnson Graduate School of Management
Cornell University
Ithaca, New York 14853-4201
(607) 255-5440

Education

California Institute of Technology, B.S. in Mathematics, 1963.
University of Michigan, M.S. in Mathematics (Probability and Statistics), 1966.
University of Michigan, Ph.D. in (Mathematical) Psychology, 1971.

Positions Held

1990 -	Professor, Johnson Graduate School of Management, and member of the faculty in the Field of Cognitive Studies, Cornell University.
1985 - 1990	Associate Professor, Johnson Graduate School of Management, and member of the faculty in the Field of Cognitive Studies, Cornell University
1977 - 1985	Associate Professor, Graduate School of Business, University of Chicago.
1976 - 1977	Visiting Associate Professor, Graduate School of Industrial Administration, Carnegie-Mellon University.
1970 - 1976	Assistant Professor, Department of Psychology, University of California, San Diego.

Professional Societies

American Marketing Association
American Psychological Association
American Psychological Society
Association for Consumer Research
Cognitive Science Society
Psychonomic Society
Society for Judgment and Decision Making

Professional Activities

Editorial Boards

Current Service

Journal of Behavioral Decision Making, 1990 -

Journal of Consumer Policy (European), 1980 -

Journal of Consumer Research, 1984 -

Sviluppo & Organizzazione, 1988 - , member of the Scientific

Committee, whose duties are to recommend published articles in behavioral and organizational studies for translation into Italian and publication in this journal.

Past Service

Journal of Consumer Affairs, 1979 - 1983

Journal of Marketing, 1979 - 1983

Journal of Personality and Social Psychology, 1985 - 1986

Journal of Retailing, 1980 - 1982

Reviewer, Ad Hoc Basis (1981 - 1991 only)

Administrative Science Quarterly

American Marketing Association: Summer Educators' Conference

Association for Consumer Research, Annual Conference

Journal of Applied Psychology

Journal of Applied Social Psychology

Journal of Behavioral Decision Making

Journal of Business

Journal of Consumer Affairs

Journal of Consumer Research

Journal of Economic Behavior and Organizations

Journal of Experimental Psychology: Learning, Memory, and Cognition

Journal of Experimental Psychology: Human Perception and Performance

Journal of Marketing Research

Journal of Mathematical Psychology

Journal of Public Policy & Marketing

Journal of Social Issues

Management Science

Marketing Science

Marketing Science Institute, peer reviews of grant applications

Memory & Cognition

National Science Foundation, peer reviews of grant applications

Professional Activities cont'd...

Psychological Review

Subjective Probability, Utility and Decision Making, conference proceedings

Consulting

GTE Laboratories, 1990. Consumer decision making.

General Motors Research Laboratories, 1985 - 1990. Consumer decision making and expert systems.

Federal Trade Commission, 1981. Price information systems in supermarkets.

National Bureau of Standards, 1978. Member, expert jury convened to design an informative product label.

Procter and Gamble, Cincinnati, Ohio, 1968. In-house consultant in marketing research.

Executive Education Seminars

"Executive Decision Making," 1981 - , various university and corporate sponsors

"Marketing Strategy," 1987 - , Executive Development Program, Johnson Graduate School of Management, Cornell University

"Applied Marketing Decision Making," 1985, Office of Continuing Education, University of Chicago.

"Judicial Decision Making," program of continuing education for Illinois judges, 1980.

Other

Marketing Science Institute, member of the Packaged Goods Steering Group, 1988 -

Association for Consumer Research, member of the Program Committee for the annual conference, 1988, 1992.

Teaching Experience

Behavioral Decision Theory: graduate (business and psychology) and undergraduate

Cognitive Psychology: graduate

Consumer Behavior: graduate

Decision Aiding: graduate

Marketing Management: graduate

Teaching Experience cont'd...

Marketing Research: graduate

Mathematical Psychology: graduate and undergraduate

Measurement Theory: graduate and undergraduate

Statistics: graduate (business and psychology) and undergraduate

Scholarly Publications

Papers Published

1. Tversky, Amos and J. Edward Russo (1969), "Substitutability and Similarity in Binary Choices," Journal of Mathematical Psychology, 6, 1-11.
2. Goode, Frank M. and J. Edward Russo (1970), "A LINC-8 Software System for the Recording and On-Line Analysis of Eye Movements," Proceedings, 78th Annual Convention, American Psychological Association, 845-846.
3. Russo, J. Edward (1974), "More Information is Better: A Reevaluation of Jacoby, Speller, and Kohn," Journal of Consumer Research, 1, 68-72.
4. Conery, John S., R.T. Smith and J. Edward Russo (1975), "Interactive Computer Techniques," Proceeding of the Digital Equipment Users Society, 1, 389-391.
5. Russo, J. Edward (1975), "The Limbus Reflection Method for Measuring Eye Position," Behavior Research Methods and Instrumentation, 7, 205-208.
6. Russo, J. Edward, Gene Krieser, and Sally Miyashita (1975), "An Effective Display of Unit Price Information," Journal of Marketing, 39, 11-19.
7. Russo, J. Edward and Larry D. Rosen (1975), "An Eye Fixation Analysis of Multialternative Choice," Memory & Cognition, 3, 267-276.
8. Doshier, Barbara A. and J. Edward Russo (1976), "Memory for Internally Generated Stimuli," Journal of Experimental Psychology: Human Learning and Memory, 2, 633-640.
9. Russo, J. Edward and Robert A. Wisher (1976), "Reprocessing as a Recognition Cue," Memory and Cognition, 4, 683-689.

10. Russo, J. Edward (1976), "When Do Advertisements Mislead the Consumer: An Answer from Experimental Psychology," In B.B. Anderson (ed.), Advances in Consumer Research, Vol. III, Association for Consumer Research, 273-275.
11. Russo, J. Edward (1977), "The Value of Unit Price Information," Journal of Marketing Research, 14, 193-201.
12. Russo, J. Edward (1977), "A Proposal to Increase Energy Conservation Through Provision of Consumption and Cost Information to Consumers." In Barnett A. Greenberg and Danny N. Bellenger (eds.), Contemporary Marketing Thought: 1977 Educators' Proceedings, Chicago: American Marketing Association, 437-442.
13. Russo, J. Edward (1977), "More Work, Better Work Needed," Review of H.L. Blalock, Jr. (ed.), Measurement in the Social Sciences: Theories and Strategies, Chicago: Aldine (1974). Contemporary Psychology, 22, 314-315.
14. Johnson, Eric J. and J. Edward Russo (1978), "The Organization of Product Information in Memory Identified by Recall Times," In H. Keith Hunt (ed.), Advances in Consumer Research, Vol. 5, Ann Arbor, Michigan: Association for Consumer Research, 79-86.
15. Russo, J. Edward (1978), "Eye Fixations Can Save the World: A Critical Evaluation and Comparison with Other Information Processing Methodologies." In H. Keith Hunt (ed.), Advances in Consumer Research, Vol. 5, Ann Arbor, Michigan: Association for Consumer Research, 561-570.
16. Gardner, Meryl P., Andrew A. Mitchell and J. Edward Russo (1978), "Chronometric Analysis: An Introduction and an Application to Low Involvement Perception of Advertisements." In H. Keith Hunt (ed.), Advances in Consumer Research, Vol. 5, Ann Arbor, Michigan: Association for Consumer Research, 581-589.
17. Russo, J. Edward (1978), "Adaptation of Cognitive Processes to the Eye Movement System." In John W. Senders, Dennis F. Fisher, and Richard A. Monty (eds.), Eye Movements and the Higher Psychological Functions. Hillsdale, New Jersey: Lawrence Erlbaum, 89-109.
18. Russo, J. Edward (1978), "Comments on Behavioral and Economic Approaches to Studying Market Behavior." In Andrew A. Mitchell (ed.), The Effect of Information on Consumer and Market Behavior. Chicago: American Marketing Association, 65-74.

19. Russo, J. Edward (1979), "A Software System for the Collection of Retrospective Protocols Prompted by Eye Fixations," Behavior Research Methods and Instrumentation, **11**, 177-179.
20. Russo, J. Edward (1979), "Consumer Satisfaction/Dissatisfaction: An Outsider's View." In William L. Wilkie (ed.), Advances in Consumer Research, Vol. 6, Ann Arbor, Michigan: Association for Consumer Research.
21. Russo, J. Edward and Eric J. Johnson (1980), "What Do Consumers Know About Familiar Products?" In Jerry C. Olson (ed.), Advances in Consumer Research, vol. 7, Ann Arbor, Michigan: Association for Consumer Research.
22. Russo, J. Edward (1981), "The Decision to Use Product Information at the Point of Purchase." In Ron Stampfl and Elizabeth Hirschman (eds.), Theory in Retailing: Traditional and Nontraditional Sources. Chicago: American Marketing Association.
23. Russo, J. Edward, Barbara L. Metcalf, and Debra L. Stephens (1981), "Identifying Misleading Advertising," Journal of Consumer Research, **8**, 119-131.
24. Russo, J. Edward and Barbara A. Doshier (1983), "Strategies for Multiattribute Binary Choice," Journal of Experimental Psychology: Learning, Memory and Cognition, **9**, 676-696.
25. Johnson, Eric J. and J. Edward Russo (1984), "Product Familiarity and Learning New Information," Journal of Consumer Research, **11**, 542-550.
26. Gardner, Meryl, Andrew A. Mitchell and J. Edward Russo (1985), "Low Involvement Strategies for Processing Advertisements," Journal of Advertising, **14**, 4-12.
27. Russo, J. Edward, Richard Staelin, Catherine A. Nolan, Gary Russell and Barbara L. Metcalf (1986), "Nutrition Information in the Supermarket," Journal of Consumer Research, **13**, 48-70.
28. Russo, J. Edward (1987), "Toward Intelligent Product Information Systems," Journal of Consumer Policy, **10**, 109-138.
29. Russo, J. Edward (1987), "The Human Cost: A Comment on Dardis," Journal of Consumer Policy, **10**, 89-92.

30. Russo, J. Edward (1988), "Information Processing from the Consumer's Perspective." In E. Scott Maynes (ed.), The Frontier of Research in the Consumer Interest. Columbia, Missouri: American Council on Consumer Interests.
31. Dubé-Rioux, Laurette and J. Edward Russo (1988), "An Availability Bias in Professional Judgment," Journal of Behavioral Decision Making, 1, 223-237.
32. Mitchell, Deborah J., J. Edward Russo and Nancy Pennington (1989), "Back to the Future: Temporal Perspective in the Explanation of Events," Journal of Behavioral Decision Making, 2, 25-39.
33. Horowitz, Abraham D. and J. Edward Russo (1989), "Modeling New Car Consumer-Salesperson Interaction for a Knowledge-Based Systems." In Srull, Thomas K. (ed.), Advances in Consumer Research, Vol. 16, Ann Arbor, Michigan: Association for Consumer Research, 392-398.
34. Russo, J. Edward, Eric J. Johnson and Debra L. Stephens (1989), "The Validity of Verbal Protocols," Memory & Cognition, 17, 759-769.
35. Russo, J. Edward and Debra L. Stephens (1990), "Ad-Specific Emotional Responses to Advertising." In Agres, Stuart, Julie A. Edell and Tony M. Dubitsky (eds.), Emotion in Advertising: Theoretical and Practical Explorations, Westport, CT: Quorum Books, pp. 113-123.
36. Mitchell, Andrew A., J. Edward Russo, and Dick R. Wittink (1991), "Issues in the Development and Use of Expert Systems for Marketing Decisions," International Journal of Research in Marketing, 8, 41-50.
37. Russo, J. Edward and France Leclerc (1991), "Characteristics of Successful Product Information Programs," Journal of Social Issues, 47, 73-92.

Papers in Preparation

38. Russo, J. Edward and Abraham D. Horowitz, "Expert Systems for Consumers." Working paper, April, 1989.
39. Russo, J. Edward and France Leclerc, "The Choice Process for Supermarket Purchases," January, 1991.

Practitioner-Oriented Publications

Books

40. Russo, J. Edward and Paul J.H. Schoemaker (1989), Decision Traps, New York: Doubleday/Currency.

Published Papers

41. Russo, J. Edward and Paul J.H. Schoemaker (1989), "Decisions Audits," Boardroom Reports, December, Vol. 26, pp. 47-53.
42. Russo, J. Edward and Paul J.H. Schoemaker (1990), "The Overconfidence Quiz," Harvard Business Review, September-October, 236-237.
43. Russo, J. Edward Russo and Paul J.H. Schoemaker (1992), "Managing Overconfidence," Sloan Management Review, Winter, Vol. 33, 7-17.

Papers in Preparation

44. Schoemaker, Paul J.H. and J. Edward Russo, "Strategic Decision Making: A Pyramid of Choice Procedures," July, 1991.
45. Schoemaker, Paul J.H. and J. Edward Russo, "The Art of Decision Framing," in preparation.

Papers Presented

"Thurstone's Law of Comparative Judgment, Case III, and Strong Stochastic Transitivity," Mathematical Psychology Meetings, Stanford, August, 1968.

"An Information Processing Analysis of Point of Purchase Decisions," American Marketing Association's Fall Educators' Conference, Rochester, New York, August 1975. Also available as Reprint 51, Center for Human Information Processing, University of California, San Diego.

"Consumer Input to the Decision Process," Annual Convention of the American Psychological Association, San Francisco, August, 1977.

"The Organization of Product Information in Memory Identified by Recall Times," Annual Conference of Association for Consumer Research, October, 1978 (with E. Johnson).

"The Use of Product Information at the Point of Purchase," Annual Conference of the Association for Consumer Research, Washington, D.C., October, 1980.

"When Can Process Tracing Data Be Trusted?" Annual Conference of the Association for Consumer Research, St. Louis, October, 1981.

"Decision Effort," Ninth Annual Interdisciplinary Conference, Jackson Hole, Wyoming, January, 1984.

"What Kind of Knowledge Representation is Best for Consumers' Product Knowledge?" Annual Conference of the Association for Consumer Research, Washington, D.C., October, 1984.

"Intelligent Product Information Systems for Consumers," Conference on New Challenges for European Consumer Policy, Federal Republic of Germany, March, 1986.

"What We Can Learn From Teaching Behavioral Decision Theory to Executives," First Annual Conference on Behavioral Decision Theory in Management, Ithaca, New York, June, 1986.

"Commercials as Film: The Importance of Stimulus Control." Annual Conference of the Association for Consumer Research, Toronto, October, 1986 (with D.L. Stephens).

"A Knowledge-Based System for Product Information." Annual Conference of the Association for Consumer Research, Boston, October, 1987 (with A.D. Horowitz).

"The Place of Advertiser Intention in Predicting Brand Attitudes." 7th Annual Advertising and Consumer Psychology Conference, New York City, May, 1988 (with D.L. Stephens).

"Modeling New Car Consumer-Salesperson Interaction for a Knowledge-Based System." Annual Conference of the Association for Consumer Research. Hawaii, October, 1988 (with A.D. Horowitz).

Papers Presented cont'd...

"Predicting Post-Advertisement Attitudes," INSEAD, Fontainebleau, France, May 1989 (with Debra Stephens).

"Expert Systems for Consumers," University of the Saarlands, Saarbrucken, Germany, June, 1989 (with Abraham D. Horowitz).

"The Framing of Decisions," Bocconi University, Milan, Italy, June, 1989.

"A Process-Tracing Analysis of Consumer Choice for Non-Durables." Twelfth Research Conference on Subjective Probability, Utility and Decision Making, Moscow, USSR, August, 1989 (with France Leclerc).

"The Validity and Value of Verbal Protocols." Twelfth Research Conference on Subjective Probability, Utility and Decision Making, Moscow, USSR, August, 1989.

"The Impact of Advertisements on Brand Attitude." Paper presented in the Marketing Series of the 50th Anniversary Jubilee of the Aarhus School of Business, Aarhus, Denmark, August, 1989.

"What Predicts the Success of Product Information Programs for Consumers?" Consumer Assembly 1990, sponsored by the Consumer Federation of America, Washington, D.C., March, 1990.

"Expert Systems for Consumers." Workshop on Expert Systems in Marketing, American Marketing Association, George Mason University, Washington, D.C., August, 1990.

"Expert Systems for Consumers." Summer Educators' Conference, American Marketing Association, Washington, D.C., August, 1990.

"Rational Reasons for Non-Rational Shifts in Values, " Thirteenth Conference of the Society for Subjective Probability, Utility and Decision Making. Fribourg, Switzerland, August 1991.

/mldb

3/27/91

/mldb

R-2/10/92

Resume - James R. Bettman
January 1992

PERSONAL DATA

Business Address: Fuqua School of Business
Duke University
Durham, NC 27706
919/660-7851

Home Address: 213 Huntington Drive
Chapel Hill, NC 27514
919/929-2295

Birthdate: September 15, 1943

Education: BA 1965 Yale University, Mathematics-Economics
M.Phil. 1969 Yale University, Administrative Sciences
Ph.D. 1969 Yale University, Administrative Sciences
(Dissertation: Behavioral Simulation
Models in Marketing Systems)

Employment: 7/83-present Burlington Industries Professor,
Fuqua School of Business, Duke University

7/82 - 6/83 IBM Research Professor,
Fuqua School of Business, Duke University

7/69 - 6/82 Assistant Professor to Professor,
Graduate School of Management, UCLA

TEACHING

Courses Taught:

At UCLA: Consumer Behavior, Managerial Model Building, Mathematics for
Management, Doctoral Seminar in Marketing

Recipient of George Robbins Teaching Excellence Award, 1974

At Duke: Consumer Behavior, Doctoral Seminar in Marketing, Quantitative
Analysis for Management

Doctoral Committees:

At UCLA: Co-chair for

Debra Scammon, University of Utah

John Swasy, American University

Hubert Gatignon, University of Pennsylvania

Mita Sujan, Pennsylvania State University (two dissertation awards)

Member of 30 committees

At Duke: Co-chair for

Christopher Puto, University of Arizona (two dissertation awards)

Kevin Keller, Stanford University (three dissertation awards)

Elizabeth Creyer, New York University

Itamar Simonson, University of California, Berkeley (two dissertation awards, one best article award)

Helen Anderson, University of Arizona

Ronald Goodstein, University of California, Los Angeles

Peter Nye, Northeastern University

Eloise Coupey, University of Illinois

Carolyn Yoon

Ellen Garbarino

Mary Frances Luce

Committee Member for

William Ross, Fuqua School of Business

Barbara Phillips, Psychology

Frank Reitz, Fuqua School of Business

David Hansen, Fuqua School of Business

Jonelle Roth, Fuqua School of Business

Ellen Stoltzfus, Psychology

Jane Kennedy, Fuqua School of Business

SCHOOL AND UNIVERSITY SERVICE

At UCLA: (Major assignments only)

Member of University Graduate Council, 1976-1978

Chair of Admissions Subcommittee

University Taskforce on Long Range Enrollment Planning, 1978

Director, Center for Marketing Studies, 1973-1975

Chairperson, Marketing Area, 1981-1982

Doctoral Board, 1973-1975, 1977-1979

Assistant Dean, Doctoral Program, 1978-1979
Vice Chairman, Department of Management, 1974-1975
Acting Associate Dean/Chairman, Department of Management, 1979-1980

At Duke:

Curriculum Committee, 1982-1983, 1985-1987, 1990 - present.
Ad Hoc Promotion Committees: 1982-1983 (3), 1983-1984 (3), 1984-1985(1), 1985-1986(1), 1986-1987(1), 1987-1988(2), 1988-1989(4), 1989-90(2), 1990-91 (1), 1991-1992 (2).
Director, Ph.D. Program, 1983-present
Admissions Committee, 1983-1984
University Promotion and Tenure Committee, 1983-1986
Marketing Area Coordinator, 1984-1990.
Search Committee, International Business Chair, 1985-1986
Dean's Advisory Council, 1985-1987
Academic Council, 1987-1989, 1990-1991
International Business Committee, 1987-1988
Provost's Advisory Committee on Distinguished Professorships, 1990-present

PROFESSIONAL ACTIVITIES

Papers Presented at Professional Societies:

1. "A Comparison of Complex and Simple Discrimination Net Models - Implications for the Structure of Information Processing in Consumer Choice Processes," paper presented at the Association for Consumer Research, Amherst, Massachusetts, August 1970.
2. "Methods for Analyzing Consumer Information Processing Models," presented at the Association for Consumer Research, College Park, Maryland, September 1971. (See also Conference Proceedings Published, No. 1)
3. "Measurement of Individuals' Priorities for National Goals," paper presented at the Operations Research Society of America, Anaheim, California, October 1971.
4. "Consumer Information Processing," invited paper at Division 23, American Psychological Association, Honolulu, Hawaii, September 1972.

5. "Determinants of Choice of Public or Private System Facilities in Medical Emergencies," presented at Division 23, American Psychological Association, Honolulu, Hawaii, September 1972.
6. "Perceived Risk: A Measurement Methodology and Preliminary Findings," presented at Association for Consumer Research, Chicago, November 1972. (See also Conference Proceedings Published, No. 2)
7. "Social Marketing and Consumers' Preferences for Social Consumption," (with R.B. Andrews) presented at Association for Consumer Research, Chicago, November 1972. (See also Conference Proceedings Published, No. 3)
8. Chairman and organizer of session, Alternative Structural Models of Consumer Attitudes, Preference, and Choice, and presentation of paper, "To Add Importance or Not to Add Importance: That Is the Question," Association for Consumer Research, Boston, November 1973. (See also Conference Proceedings Published, No. 4)
9. "A Multimethod Approach to Validating Multiattribute Attitude Models," (with N. Capon, R. Lutz) presented at Association for Consumer Research, Chicago, November 1974. (See also Conference Proceedings Published, No. 6)
10. Chairman and organizer of Special Topics Session, Processes of Consumer Information Acquisition, and presentation of paper, "Patterns of Processing in Consumer Information Acquisition" (with Jacob Jacoby), Association for Consumer Research, Cincinnati, October 1975. (See also Conference Proceedings Published, No. 7)
11. "Data Collection and Analysis Approaches for Studying Consumer Information Processing," presented at Association for Consumer Research, Atlanta, October 1976. (See also Conference Proceedings Published, No. 8).
12. "Information Monitoring Methods and Consumer Choice Processes," presented at American Psychological Association, San Francisco, August 1, 1977.
13. Chairman and organizer of Special Topics Session, Recent Developments in Studying Consumer Information Processing, and presentation of paper, "Subjects' Information Processing in Information Display Board Studies," (with D. Arch) Association for Consumer Research, Chicago, October 1977. (See also Conference Proceedings Published, No. 9)

14. Invited discussant, session on Children's Information Processing and Consumer Behavior, Association for Consumer Research, Chicago, October 1977.
15. "Methods for Implementing Consumer Choices and Product Class Experience," presented at American Marketing Association Educators' Conference, Chicago, August 1978. (See also Conference Proceedings Published, No. 10)
16. "Issues in Research on Consumer Choice," presented at Association for Consumer Research, Miami, October 1978. (See also Conference Proceedings Published, No. 11)
17. "Cognitive Capacity, Decision Rules, and Internal Search," presented at Association for Consumer Research, San Francisco, October 1979.
18. "Implications of a Constructive View of Choice for Analysis of Protocol Data," presented at Association for Consumer Research, San Francisco, October 1979. (See also Conference Proceedings Published, No. 13)
19. Invited discussant, session on Information Processing Theory, Association for Consumer Research, San Francisco, October 1979.
20. "Decision Strategies: Issues Surrounding the Dependent Variable in Decision Studies," presented at Association for Consumer Research, Washington, October 1980.
21. "Future Directions in Consumer Research," presented at American Marketing Association Educators' Conference, Washington, October 1981.
22. Invited speaker for Division 23 Conversation Hour, American Psychological Association, Los Angeles, August 1981.
23. Chairman and organizer of Special Topics Session, The Role of Affect in Cognitive Approaches to Consumer Choice, and presentation of paper, "A Functional Analysis of the Role of Overall Evaluation of Alternatives in Choice Processes," Association for Consumer Research, St. Louis, October 1981 (See also Conference Proceedings Published, No. 14).
24. "Recent Research on Consumer Memory," Association for Consumer Research, St. Louis, October 1981.

25. Chairman and organizer of Special Topics Session, Cognitive Approaches to Consumer Learning, and presentation of paper, "Consumers' Assessment of Covariation" (with Deborah Roedder and Carol Scott), Association for Consumer Research, Chicago, October 1983 (See also Conference Proceedings Published, No. 15).
26. "A Categorization Approach for Comparing Non-Comparable Alternatives" (with Mita Suján), Association for Consumer Research, Las Vegas, October 1985.
27. "Perspectives on Consumers' Intuitive Theories of Persuasion," Association for Consumer Research, Las Vegas, October 1985.
28. "Monitoring Information Acquisition in Decision Making: Experiences with Mouselab, a Computer-Based Process-Tracing System" (with Eric Johnson), Association for Consumer Research, Toronto, October 1986.
29. "What Makes a Television Commercial Persuasive? The Consumer's Viewpoint" (with Julie Edell), Association for Consumer Research, Toronto, October 1986.
30. "Processes of Adaptivity in Decision Making," Presidential Address, Association for Consumer Research, Boston, October 1987 (See also Conference Proceedings Published, No. 16).
31. "Heuristic Processes in Judgment: Effects of Compatibility and Information Load" (with Eric Johnson), Association for Consumer Research, Maui, Hawaii, October 1988.
32. "Adapting to Correlated Attributes: Do Decision Makers Change Strategies When Faced with Harder Choices?" (with Eric Johnson), Association for Consumer Research, New York, October 1990.

Participation on Public Lectures or Forums:

1. "Scaling and Multivariate Analysis of Attitudes: Methods and Application to National Priorities," presented at Attitude Research and Consumer Behavior Workshop, University of Illinois, December 1970.
2. Chairman of session on Consumer Psychology in Health Care Decisions, Division 23, American Psychological Association, Honolulu, September 1972.

3. "Decision Net Models of Buyer Information Processing and Choice: Findings, Problems, and Prospects," presented at Workshop on Buyer/Consumer Information Processing, University of Chicago, November 1972. (See also Chapters in Books, No. 1)
4. "Using Attitudes to Predict Behavior," presented to Southern California Research Society, September 1973.
5. "Information Processing in Expectancy-Value Attitude Models," College of Business Administration Distinguished Speaker Series, University of Florida, January 1975.
6. "Adding vs. Averaging in Fishbein's Attitude Model," presented to Stanford-Berkeley Workshop in Marketing, January 1975.
7. "Information Integration in Multiple-Attribute Attitude Models," presented to Workshop in Business Administration, Claremont Graduate School, January 1975.
8. Chairman, session on Marketing Models: Role, Applications, and Prospects, American Marketing Association Fall Conference, Rochester, August 1975.
9. "Consumer Information Processing and Decision Making," presented to Department of Psychological Sciences, Purdue University, September 1975.
10. "Implications of Recent Research on Choice for Consumer Information Processing Models," Marketing Workshop, University of Chicago, May 1976.
11. "Methodological Issues in Investigating Consumer Information Processing," presented as invited faculty speaker, Doctoral Consortium, American Marketing Association, Houston, August 1976.
12. "Consumer Information Acquisition and Search Strategies," presented at workshop on The Effect of Information on Consumer and Market Behavior, Carnegie-Mellon University, May 1977. (See also Conference Proceedings Published, No. 12)
13. "The State of the Art in Consumer Information Processing Research," Laval University, May 1977.
14. Chairman, session on Doctoral Dissertation Awards Competition Papers, American Marketing Association Fall Conference, Hartford, August 1977.

15. "Recent Research on Consumer Behavior," presented as invited faculty speaker, Doctoral Consortium, American Marketing Association, Chicago, August 1978.
16. Testimony presented to Federal Trade Commission in Rule Making Proceedings on Advertising for Over-the-Counter Antacids, Washington, January 1979.
17. "An Introduction to Principles of Consumer marketing," presented at First Joint Conference on International Business and Economic Development, Zhongshan University and UCLA, Guangzhou, People's Republic of China, October 1979.
18. "Experience and Consumer Choice," Duke University, October 1980.
19. "Recent Research in Consumer Information Processing," University of Washington, April 1981.
20. "Knowledge Structures and Learning from Experience," presented as invited faculty speaker, Doctoral Consortium, American Marketing Association, College Park, Maryland, August 1981.
21. "Processing with a Prior Hypothesis," seminars at Pennsylvania State University and Carnegie-Mellon University, November 1981.
22. "Assessment of Covariation with a Prior Hypothesis: The Case of Price-Quality Relations," seminar at University of British Columbia, March 1982.
23. "Effects of Prior Knowledge on Subsequent Processing," presented as invited faculty speaker, Doctoral Consortium, American Marketing Association, Minneapolis, August 1982.
24. Chairman, session on Effects of Self-Concept and Personal Values, American Marketing Association Fall Conference, Chicago, August 1982.
25. Panel member, Meet the Editors session, American Marketing Association Fall Conference, Chicago, August 1982.
26. Chairperson, session on Cognitive Perspectives on Consumer Behavior, Association for Consumer Research, San Francisco, October 1982.
27. "Attributions in Annual Reports," invited seminar, University of North Carolina, November 1982.

28. "Microcomputers in Consumer Research," invited seminar, Virginia Polytechnic Institute, May 1983.
29. "Knowledge and Consumer Information Processing," Distinguished Speaker Series, University of Florida, June 1983.
30. "Microcomputers in Consumer Research," presented as invited faculty speaker, Doctoral Consortium, American Marketing Association, Ann Arbor, August 1983.
31. "Expert Systems in Marketing," invited seminar, University of California, Los Angeles, February 1984.
32. Chairperson of Special Topics Session, "Consumer Knowledge Structures," Association for Consumer Research, Washington, October 1984.
33. "Monitoring Contingent Information Processing" (with John Payne and Eric Johnson), presented at Behavioral Decision Research in Management Workshop, Cornell University, June 1986.
34. "Adaptive Decision Making" (with Eric Johnson), presented at Stellner Symposium on Cognitive Psychology in Marketing, University of Illinois, May 1987.
35. "Adaptivity in Decision Making" (with John Payne), presented at University of North Carolina, March 1988.
36. Panelist on doctoral programs, GMAC/AACSB Minority Summer Institute, Ann Arbor, July 1990, July 1991.
37. "Adaptivity in Decision Making", presented as invited faculty speaker, Doctoral Consortium, American Marketing Association, Gainesville, Florida, August 1990.
38. "Constructive Processes in Decision Making," Wroe Alderson Distinguished Lecture, Wharton School, University of Pennsylvania, May 1991.
39. "Effects of Feedback on Decision Strategies in Correlated Environments," presented at Wharton School, University of Pennsylvania, May 1991.
40. Co-chair and co-organizer (with Wanda Wallace) of session "On Becoming Inhibited: A Different Metaphor for Consumer Cognitive Processing," Association for Consumer Research, Chicago, October 1991.

Service to Scholarly Journals and Other Publications:

1. Review of textbooks:

Goodyear Publishers, 1970, 1975
Dryden Press, 1976
West Publishers, 1976
Brooks/Cole Publishers, 1977
Kent Publishers, 1979, 1980
Addison-Wesley, 1979, 1980, 1981, 1982, 1983

2. Editorial Service:

Co-Editor, Journal of Consumer Research, 1981-1987

3. Membership on Editorial Boards:

Journal of Consumer Research, 1973-1981, 1987-present
Journal of Marketing, 1978-1981
Journal of Marketing Research, 1988-present
Journal of Behavioral Decision Making, 1990-present
Journal of Consumer Psychology, 1991-present

4. Reviewer Service to Scholarly Journals:

Management Science, 1971-present (occasional)
Journal of Business Research, 1974
Journal of Consumer Policy, 1978
Journal of Business, 1978
Journal of Marketing Research, 1979, 1980, 1981, 1987
Organizational Behavior and Human Performance, 1980
Marketing Science, 1981
Memory and Cognition, 1981, 1982
Journal of Consumer Affairs, 1981
Journal of Applied Psychology, 1981
Administrative Science Quarterly, 1982, 1983
Journal of Management Studies, 1984, 1985
Journal of Behavioral Decision Making, 1988, 1989

5. Reviewer Service for Conferences:

American Marketing Association Proceedings, 1973, 1974,
1976, 1977, 1980, 1986, 1988
Association for Consumer Research Proceedings, 1975-present

American Marketing Association Theory Conference, 1981

6. Other Reviewer Service:

National Science Foundation Proposals, 1978, 1979, 1982,
1987, 1988, 1989, 1990, 1991
American Marketing Association Doctoral Dissertation
Competition, 1978-present.
American Marketing Association Doctoral Research Proposal
Competition, 1979, 1980
Association for Consumer Research Doctoral Research Proposal
Competition, 1980, 1981
National Institute of Mental Health Proposal, 1981
Australian Social Science Council Proposal, 1981
American Psychological Association Division 23 Doctoral
Dissertation Competition, 1984
Social Sciences and Humanities, Research Council of Canada
Proposal, 1986

Membership in Professional Associations and Scholarly Societies:

1. Institute of Management Sciences, 1967-present
2. Operations Research Society of America (Associate Member), 1968-present
3. Association for Consumer Research, 1970-present
Director (Elected), 1976-1979
President (Elected), 1987-1988
Fellow in Consumer Behavior (Elected), 1991
4. American Psychological Association
Member, 1975-present
Fellow (Elected), 1981-present
Division 23, Affiliate Member, 1972-1977; Member, 1977-present
5. Society for Judgment and Decision Making
Member, 1987-present
6. American Psychological Society
Member, 1991-present
Fellow, 1991-present

Consulting to Governmental Agencies:

1. Consultant to model Neighborhood Program, County of Los Angeles, 1971.
2. Consultant to US Court, Central District of California, 1973-1975.
3. Consultant to Alcohol Safety Action Project, County of Los Angeles, 1974-1975.
4. Consultant to project funded by the National Science Foundation (RANN), Amount, Type, and Order of Package Information Acquisition in Purchasing Decisions, Jacob Jacoby, Purdue, Principal Investigator, 1974-1975.
5. Consultant to project funded by the National Science Foundation, Decision Making Processes Among Elderly Consumers, Tora Bikson, RAND Corporation, Principal Investigator, 1976-1978.
6. Consultant to project funded by the National Science Foundation, Improving Consumer Decisions at the Point of Purchase, J. Edward Russo, University of Chicago, Principal Investigator, 1977-1980.
7. Member of expert jury used to design product labels for National Bureau of Standards (Marketing Science Institute grant), 1977-1978.
8. Consultant to grant studying warning labels on over-the-counter drugs funded by California Citizens' Action Group, Peter Wright, Stanford, Principal Investigator, 1978-1979.
9. Comments solicited from Federal Trade Commission on proposed Trade Regulation Rule on Food Advertising, 1979.
10. Member of Research Advisory Board, National Science Foundation Grant to Jacob Jacoby, New York University, 1980-1983.
11. Consultant to grant on chemical labeling funded by EPA, Kip Viscusi and Wes Magat, Duke University, Principal Investigators, 1983-1984.

Grants and Contracts:

1. Helped to write proposal and serving as Research Associate on proposal to Office of Naval Research, John Payne, Duke University, Principal Investigator. Funding period was from 1984-1987, for \$229,849.

2. Helped to write proposal and serving as Research Associate on grant from Office of Naval Research, John Payne, Duke University, Principal Investigator. Funding period was from 1987-1990, for \$396,121.
3. Helped to generate proposal and serving as consultant on grant from National Science Foundation, Eric Johnson, University of Pennsylvania, Principal Investigator. Funding period was from 1988-1990, for \$105,555.

Other Consulting or Professional Activities:

1. Consultant to Budget Rent-a-Car, 1973-1974.
2. Program Chairman, Methodology Tract, American Marketing Association Fall Conference, 1975.
3. Service as outside evaluator for promotion cases at other universities, 1975-76(4), 1976-77(2), 1977-78(5), 1979-80(4), 1980-81(5), 1981-82(5), 1982-83(13), 1983-84(7), 1984-85(6), 1985-1986(11), 1986-87(12), 1987-88(7), 1988-89(15), 1989-90(10), 1990-91 (3), 1991-1992 (2).
4. Chairman of Doctoral Dissertation Awards Competition, American Marketing Association, 1976-1977.
5. Member, American Marketing Association Inter-University Council on Marketing Education, 1977-1979.
6. Faculty Associate, Management Analysis Center, Inc., 1977-1985.
7. Consultant to University Extension, UCLA, 1978.
8. Judge, Complete Campaigns Competition, American Advertising Federation "Best in the West" Competition, 1980.
9. Consultant, Lawler, Felix, and Hall, 1980.
10. Coordinator at UCLA for Alpha Mu Alpha Marketing Honorary Society, 1981-1982.
11. Program Committee, Association for Consumer Research Conference, 1982.

12. Wrote proposal to attract and one of organizers for the 1985 American Marketing Association Doctoral Consortium held at Fuqua School of Business.
13. Consultant, Burke Marketing Research 1984-1985.
14. Consultant, Shook, Hardy & Bacon, 1985.
15. Consultant, Hunton & Williams, 1985-86.
16. Consultant, Lester Schwab Katz & Dwyer, 1987.
17. Consultant, Wildman, Harrold, Allen & Dixon, 1987.
18. Member of outside review panel, Quinquennial Review, Marketing Department, Wharton School, University of Pennsylvania, 1988.
19. Consultant, Kane, Dalsimer, Sullivan, Kurucz, Levy, Eisele and Richard, 1989.
20. Member, Advisory Committee for the GMAC-AACSB Minority Summer Institute, 1989-present.

Awards and Honors:

1. Winner, 1979 Harold M. Maynard Award for significant contribution to marketing theory and thought (See also Professional Journal Articles Published, No. 21).
2. Elected as a Fellow of American Psychological Association, 1981.
3. Duke University Scholar/Teacher of the Year, 1988.
4. NCNB Faculty Award, Fuqua School of Business, 1988.
5. Fellow, American Psychological Society, 1991.
6. Elected as Fellow in Consumer Behavior, Association for Consumer Research, 1991

PUBLICATIONS

Books:

1. Bettman, J.R., An Information Processing Theory of Consumer Choice, Addison-Wesley, 1979.
2. Payne, J.W., Bettman, J.R., and Johnson, E.J., The Adaptive Decision Maker, Cambridge University Press, forthcoming.

Chapters in Books:

1. Bettman, J.R., "Decision Net Models of Buyer Information Processing and Choice: Findings, Problems, and Prospects," in Buyer/Consumer Information Processing, Hughes, G.D., and Ray, M.L. (Eds.), University of North Carolina Press, 59-74, 1974.
2. Lutz, R.J., and J.R. Bettman, "Multiattribute Models in Marketing: A Bicentennial Review," in Foundations of Consumer and Industrial Buying Behavior, Woodside, A.G., Sheth, J.N., and Bennett, P.D. (Eds.), North Holland, 137-149, 1977.

Reprinted in Consumer Behavior for Marketing Managers, Fenwick, I., and Quelch, J. (Eds.), Allyn and Bacon, Inc., 1984.

3. Bettman, J.R., "Consumer Psychology," in Annual Review of Psychology, Vol. 37, 257-289, 1986.
4. Bettman, J.R., Payne, J.W., and R. Staelin, "Guidelines for Designing an Effective Labeling System: Cognitive Considerations in Presenting Risk Information," in Learning About Risk, Viscusi, K., and Magat, W. (Eds.), Harvard University Press, 13-41, 1987 (see also Professional Journal Articles No. 26).
5. Payne, J.W., Bettman, J.R., and E.J. Johnson, "The Adaptive Decision Maker: Effort and Accuracy in Choice," in Insights in Decision Making: A Tribute to Hillel J. Einhorn, Hogarth, R. M. (Ed.), University of Chicago Press, 129-153, 1990.
6. Bettman, J.R., Johnson, E.J., and Payne, J.W., "Consumer Decision Making," in Handbook of Consumer Theory and Research, Robertson, T.S., and Kassarian, H.H. (Eds.), Prentice Hall, 50-84, 1991.

7. Payne, J. W., Bettman, J. R., and Johnson, E. J., "Behavioral Decision Research: A Constructive Processing Perspective," Annual Review of Psychology, Vol. 43, 1992.
8. Payne, J. W., Bettman, J. R., and Johnson, E. J., "The Use of Multiple Strategies in Judgment and Choice," in Individual and Group Decision Making, Castellan, N. J. (Ed.), Lawrence Erlbaum, in press.
9. Johnson, E.J., Payne, J.W., and Bettman, J.R., "Adapting to Time Constraints," in Time Pressure and Stress in Human Judgment and Decision Making, Maule, J., and Svenson, O. (Eds.), Plenum, in press.

Professional Journal Articles:

1. Bettman, J.R., "Information Processing Models of Consumer Behavior," Journal of Marketing Research, 7, 370-376, 1970.

Reprinted in Perspectives in Consumer Behavior (Second Edition), Kassarian, H.H., and Robertson, T.S. (Eds.), Scott, Foresman and Company, 572-583, 1973.

Reprinted in French as "Modelisation du Traitement de l'Information par l'Acheteur," in Encyclopedie du Marketing, Techniques Commerciales, Editions Techniques, 1976.
2. Bettman, J.R., "The Structure of Consumer Choice Processes," Journal of Marketing Research, 8, 465-471, 1971.

Reprinted in part in Consumer Behavior: A Cognitive Orientation, Markin, R., Macmillan Publishing Co., 517-520, 1974.
3. Bettman, J.R., "Measuring Individuals' Priorities for National Goals: A Methodology and Empirical Example," Policy Sciences, 2, 373-390, 1971.
4. Bettman, J.R., "A Graph Theory Approach to Comparing Consumer Information Processing Models," Management Science, 18, 4 (Part II), 1141-128, 1971.
5. Bettman, J.R., and Jones, J.M., "Formal Models of Consumer Behavior: A Conceptual Overview," The Journal of Business, 45, 544-562, 1972.

Reprinted in Consumer Behavior for Marketing Managers, in Fenwick, I., and Quelch, J. (Eds.), Allyn and Bacon, Inc., 1984.

6. Bettman, J.R., "Perceived Price and Product Perceptual Variables," Journal of Marketing Research, 10, 100-102, 1973.
 7. Bettman, J.R., "Perceived Risk and Its Components: A Model and Empirical Test," Journal of Marketing Research, 10, 184-190, 1973.
 8. Bettman, J.R., and Nakanishi, M., "The Interrelationships Among Perceived Risk, Information, and the Acceptable Brand Set," Journal of Business Administration, 5, 37-49, 1973.
 9. Bettman, J.R., "Relationship of Information Processing Attitude Structures to Private Brand Purchasing Behavior," Journal of Applied Psychology, 59, 79-83, 1974.
 10. Bettman, J.R., "Toward a Statistics for Consumer Decision Net Models," Journal of Consumer Research, 1, 1, 71-80, 1974.
 11. Bettman, J.R., "A Threshold Model of Attribute Satisfaction Decisions," Journal of Consumer Research, 1, 2, 30-35, 1974.
 12. Nakanishi, M., and Bettman, J.R., "Attitude Models Revisited: An Individual Level Analysis," Journal of Consumer Research, 1, 3, 16-21, 1974.
 13. Bettman, J.R., Capon, N., and Lutz, R.J., "Cognitive Algebra in Multi-attribute Attitude Models," Journal of Marketing Research, 12, 151-164, 1975.
- Finalist, 1980 William F. O'Dell Award for most outstanding article in 1975.
14. Bettman, J.R., Capon, N., and Lutz, R.J., "Multiattribute Measurement Models and Multiattribute Attitude Theory," Journal of Consumer Research, 1, 4, 1-15, 1975 (Published as lead article with commentaries).
 15. Bettman, J.R., "Information Integration in Consumer Risk Perception: A Comparison of Two Models of Component Conceptualization," Journal of Applied Psychology, 60, 381-385, 1975.
 16. Bettman, J.R., Capon N., and Lutz, R.J., "Information Processing in Attitude Formation and Change," Communication Research, 2, 267-278, 1978.

17. Bettman, J.R., "Issues in Designing Consumer Information Environments," Journal of Consumer Research, 2, 169-177, 1975.
- Reprinted in Readings in Consumer Behavior: Individuals, Groups, and Organizations, Wallendorf, M., and Zaltman, G. (Eds.), John Wiley & Sons, 314-324, 1979.
- Reprinted in Perspectives in Consumer Behavior (3rd Edition), Kassarian, H.H., and Robertson, T.S. (Eds.), Scott Foresman and Company, 86-96, 1981.
18. Bettman, J.R., and Kakkar, P., "Effects of Information Presentation Format on Consumer Information Acquisition Strategies," Journal of Consumer Research, 3, 233-240, 1977.
19. Bettman, J.R., and Zins, M., "Constructive Processes in Consumer Choice," Journal of Consumer Research, 4, 75-85, 1977.
- Reprinted in Contemporary Perspectives in Consumer Research, Lutz, R.J. (Ed.), Kent Publishing, 105-124, 1981.
- Reprinted in Perspectives in Consumer Behavior, 4th Edition, Kassarian, H. H., & Robertson, T.S. (Eds.), Prentice-Hall, 166-181, 1991.
20. Bettman, J.R., Kassarian, H.H., and Lutz, R.J., "Consumer Behavior," Review of Marketing, 1, 194-229, 1978.
21. Bettman, J.R., "Memory Factors in Consumer Choice: A Review," Journal of Marketing, 43, 37-53, 1979. This article is partly based on Chapter 6 of the book listed in Books Published above.
- Winner, 1979 Harold M. Maynard Award for significant contribution to marketing theory and thought, American Marketing Association.
- Reprinted in Contemporary Perspectives in Consumer Research, Lutz, R.J. (Ed.), Kent Publishing, 124-153, 1981.
- Reprinted in Consumer Behavior for Marketing Managers, Fenwick, I., and Quelch, J. (Eds.), Allyn and Bacon, 1984.
22. Bettman, J.R., and Zins, M., "Information Format and Choice Task Effects in Consumer Decision-Making," Journal of Consumer Research, 6, 141-153, 1979.

23. Burke, M., Belch, G., Lutz, R.J., and Bettman, J.R., "Affirmative Disclosure in Home Purchasing," Journal of Consumer Affairs, 13, 297-310, 1979. This is a revised version of Report 2 listed below.
24. Bettman, J.R., and Park, C.W., "Effects of Prior Knowledge and Experience and Phase of the Choice Process on Consumer Decision Processes: A Protocol Analysis," Journal of Consumer Research, 7, 234-248, 1980.

Reprinted in Perspectives in Consumer Behavior, 4th Edition, Kassarian, H.H., & Robertson, T.S. (Eds.), Prentice-Hall, 182-202, 1991.
25. Bettman, J.R., and Weitz, B.A., "Attributions in the Board Room: Causal Reasoning in Corporate Annual Reports," Administrative Science Quarterly, 28, 165-183, 1983 (lead article).
26. Bettman, J.R., Payne, J.W., and Staelin, R., "Cognitive Considerations in Designing Effective Labels for Presenting Risk Information," Journal of Marketing and Public Policy, 5, 1-28, 1986 (lead article).
27. Roedder John, D., Scott, C.A., and Bettman, J.R., "Sampling Data for Covariation Assessment: The Effect of Prior Beliefs on Search Patterns," Journal of Consumer Research, 13, 38-47, 1986.
28. Sujan, M., Bettman, J.R., and Sujan, H., "Effects of Consumer Expectations on Information Processing in Selling Encounters," Journal of Marketing Research, 23, 346-353, 1986.
29. Bettman, J.R., Roedder John, D., and Scott, C.A., "Covariation Assessment by Consumers," Journal of Consumer Research, 13, 316-326, 1986.
30. Bettman, J.R., and Sujan, M., "Research in Consumer Information Processing", Review of Marketing, 197-235, 1987.
31. Bettman, J.R., and Sujan, M., "Effects of Framing on Evaluation of Comparable and Noncomparable Alternatives by Expert and Novice Consumers," Journal of Consumer Research, 14, 141-154, 1987 (lead article).
32. Johnson, E.J., Payne, J.W., and Bettman, J.R., "Information Displays and Preference Reversals", Organizational Behavior and Human Decision Processes, 42, 1-21, 1988 (lead article).

33. Sujan, H., Sujan, M., and Bettman, J.R., "Knowledge Structure Differences Between More Effective and Less Effective Salespeople," Journal of Marketing Research, 25, 81-86, 1988.
34. Payne, J.W., Bettman, J.R., and Johnson, E.J., "Adaptive Strategy Selection in Decision Making", Journal of Experimental Psychology: Learning, Memory, and Cognition, 14, 534-552, 1988.
35. Bettman, J.R., Creyer, E.H., Roedder John, D., and Scott, C.A., "Covariation Assessment in Rank Order Data," Journal of Behavioral Decision Making, 1, 239-254, 1988.
36. Bettman, J.R., Johnson, E.J., and Payne, J.W., "A Componential Analysis of Cognitive Effort in Choice," Organizational Behavior and Human Decision Processes, 45, 111-139, 1990.
37. Sujan, M., and Bettman, J.R., "The Effects of Brand Positioning Strategies on Consumers' Brand and Category Perceptions: Some Insights from Schema Research," Journal of Marketing Research, 26, 454-467, 1989.
38. Payne, J.W., Johnson, E.J., Bettman, J.R., and Coupey, E., "Understanding Contingent Choice: A Computer Simulation Approach," IEEE Transactions on Systems, Man, and Cybernetics, 20, 296-309, 1990 (lead article).
39. Creyer, E.H., Bettman, J.R., & Payne, J.W., "The Impact of Accuracy and Effort Feedback and Goals on Adaptive Decision Behavior," Journal of Behavioral Decision Making, 3, 1-16, 1990 (lead article).
40. Sujan, H., Sujan, M., and Bettman, J.R., "The Practical Know-How of Selling: Differences in Knowledge Content Between More Effective and Less Effective Performers," Marketing Letters, 2, 367-378.
41. Baumgartner, H., Sujan, M., and Bettman, J. R., "Autobiographical Memories, Affect, and Consumer Information Processing," Journal of Consumer Psychology, 1, 53-82.
42. Payne, J.W., Bettman, J.R., Coupey, E., and Johnson, E.J., "A Constructive Process View of Decision Making: Multiple Strategies in Judgment and Choice," Acta Psychologica, forthcoming.

Conference Proceedings Published

1. Bettman, J.R., "Methods for Analyzing Consumer Information Processing Models," in Proceedings of the Second Annual Conference of the Association for Consumer Research, Gardner, D. (Ed.), 197-207, 1971.
2. Bettman, J.R., "Perceived Risk: A Measurement Methodology and Preliminary Findings," in Proceedings of the Third Annual Conference of the Association for Consumer Research, Venkatesan, M. (Ed.), 394-403, 1972.
3. Bettman, J.R., and Andrews, R.B., "Social Marketing and Consumers' Preferences for Social Consumption," in Proceedings of the Third Annual Conference of the Association for Consumer Research, Venkatesan, M. (Ed.), 679-688, 1972.
4. Bettman, J.R., "To Add Importance or Not to Add Importance: That is the Question," in Advances in Consumer Research, Volume I, Ward, S., and Wright, P. (Eds.), 291-301, 1974.
5. Weddle, D.E., and Bettman, J.R., "Marketing Underground: An Investigation of Fishbein's Behavioral Intention Model," in Advances in Consumer Research, Volume I, Ward, S., and Wright, P. (Eds.), 301-318, 1974.
6. Bettman, J.R., Capon, N., and Lutz, R.J., "A Multimethod Approach to Validating Multiattribute Attitude Models," in Advances in Consumer Research, Volume II, Schlinger, M.J. (Ed.), 357-374, 1975.
7. Bettman, J.R., and Jacoby, J., "Patterns of Processing in Consumer Information Acquisition," in Advances in Consumer Research, Volume III, Anderson, B.B. (Ed.), 315-320, 1976.
8. Bettman, J.R., "Data Collection and Analysis Approaches for studying Consumer Information Processing," in Advances in Consumer Research, Volume IV, Perreault, W. (Ed.), 342-348, 1977.
9. Arch, D.C., Bettman, J.R., and Kakkar, P., "Subjects' Information Processing in Information Display Board Studies," in Advances in Consumer Research, Volume V, Hunt, H.K. (Ed.), 555-560, 1978.
10. Bettman, J.R., and Kakkar, P., "Methods for Implementing Consumer Choices and Product Class Experience," in Research Frontiers in Marketing: Dialogues and Directions, Proceedings of the Fall Conference, American Marketing Association, Jain, S.C. (Ed.), 198-201, 1978. This is a revised and shortened version of Working Paper 2 below.

11. Bettman, J.R., "Issues in Research on Consumer Choice," in Advances in Consumer Research, Volume 6, Wilkie, W.L. (Ed.), 214-217, 1979.
12. Bettman, J.R., "Consumer Information Acquisition and Search Strategies," in The Effect of Information on Consumer and Market Behavior, Mitchell, A.A. (Ed.), 35-48, 1978. This paper is based on Chapter 5 of the book listed in Books Published above.
13. Bettman, J.R., and Park, C.W., "Implications of a Constructive View of Choice for Analysis of Protocol Data: A Coding Scheme for Elements of Choice Processes," in Advances in Consumer Research, Volume 7, Olson, J.C. (Ed.), 148-153, 1980.
14. Bettman, J.R., "A Functional Analysis of the Role of Overall Evaluation of Alternatives in Choice Processes," in Advances in Consumer Research, Volume 9, Mitchell, A. (Ed.), 87-93, 1982.
15. Bettman, J.R., Roedder John, D., and Scott, C.A., "Consumers' Assessment of Covariation," in Advances in Consumer Research, Volume 11, Kinnear, T. (Ed.), 466-471, 1984.
16. Bettman, J.R., "Processes of Adaptivity in Decision Making," in Advances in Consumer Research, Volume 15, Houston, M. (Ed.), 1-4, 1988.

Reports:

1. Andrews, R.B., Davis, L.E., Bettman, J.R., Granit, R., and Siler, K.F., Methodologies for the Evaluation and Improvement of Emergency Medical Services Systems, Volume I (July 1975) and II (August 1975). Final Report for Contract No. NHTSA-FH-11-6849, US Department of Transportation.
2. Bettman, J.R., Capon, N., Lutz, R.J., Burke, M., and Belch, G.E., Affirmative Disclosure in Home Purchasing, Occasional Paper No. 14, Housing, Real Estate, and Urban Land Studies Program, Graduate School of Management, UCLA, January 1978.

Unpublished Working Papers:

1. Bettman, J.R., "Applying a New Methodological Approach to a Problem of Information Processing Model Validation," Western Management Science Institute Working Paper 152, October 1969.
2. Bettman, J.R., and Kakkar, P., "Consumer Information Processing Mechanisms and Product Class Experience," Working Paper Series, Center for Marketing Studies, UCLA, Paper 44, July 1976.
3. Bettman, J.R., Scott, C.A., Weitz, B.A., and Lutz, R., "Perceptions of Corporate Performance: Empirical Test of an Attribution-Based Framework," Working Paper Series, Center for Marketing Studies, UCLA, Paper 71, March 1979.
4. Bettman, J.R., and Park, C.W., "Description and Examples of a Protocol Coding Scheme for Elements of Choice Processes," Working Paper Series, Center for Marketing Studies, UCLA, Paper 76, August 1979.
5. Johnson, E.J., Payne, J.W., Schkade, D., and Bettman, J.R., "Monitoring Information Acquisitions and Decisions: A Process Tracing Methodology for Decision Research," February 1989.
6. Moore, M.C., Bettman, J.R., and Weitz, B., "Competitive Moves: To Every Action There Is Not Necessarily an Equal and Opposite Reaction," December 1990.
7. Johnson, E.J., Payne, J.W., and Bettman, J.R., "Heuristic Processes in Judgment: Effects of Compatibility and Information Load," in preparation.
8. Bettman, J.R., Johnson, E.J., Luce, M.F., and Payne, J.W., "Correlation, Conflict, and Choice," submitted to Journal of Experimental Psychology: Learning, Memory, and Cognition, November 1991.
9. Bettman, J.R., Luce, M.F., and Payne, J.W., "Effects of Regret, Disappointment, and Expected Value Feedback on Processing and Performance," September 1991.

APPENDIX C

MODERATOR'S GUIDE

CONSUMER FOCUS GROUPS MODERATOR'S GUIDE

I. Welcome the group, establish the tone, and complete questionnaire (20 mins)

- Who we are and who we represent (1 min)
- Why you have been asked to participate (1 mins)
 - You are the consumers who will buy and eat the products we wish to discuss
 - We want to know about how you decide what products to buy and eat
 - Specifically, we want to find out whether or not you use nutrition labels on meat and poultry products, how you use the information, and what kind of nutritional information is most helpful and important to you. (*Refer to overhead displaying different types of nutrition labels.*)
- How the interview session will work (2 mins)
 - Session will last about an hour and a half
 - Session is being video taped, but no names will be attached to your responses
 - No right or wrong answers or ideas - your opinions are what we want
 - We want your honest opinions - the same ones you'd talk to your friends about
 - It is not important whether or not you agree with the other people here today
 - We would like the discussion to be open and informal - not just a question and answer session.
 - We encourage interaction among the group - not just between us and the group
- What meat and poultry products we are interested in (1 min)
 - Meat products include things like packaged/processed beef and pork, as well as products made from these meats, like hot dogs, beef pot pies, and sausage
 - Poultry products include fresh chicken and turkey as well as products made from chicken and turkey, like frozen dinners and luncheon meats
- Group members will be given a questionnaire that asks about nutrition labels (refer to Attachment A) (5 mins)

(After 5 minutes, the moderator's associate will collect Attachment A from the participants and tally the results in a simple format for the moderator to use during the discussion in Section II of the guide.)
- Introduce yourselves and tell us about your household size, meal planning habits, and shopping habits (10 mins)
 - Household size
 - Meal planning habits
 - Shopping habits

II. Discuss consumer's current use of nutrition labels (40 mins)

Refer to Attachment A and ask questions of each group member

Topic 1: What is the relative importance of nutrition content and information (5 mins)

- What are the most important qualities in making a purchase decision of a grocery item (e.g. taste, price, nutrition)?
- How important is nutrition content and nutrition information when making a purchase decision of a grocery item?

Topic 2: How often do you look at nutrition labels while grocery shopping (10 mins)

- How often do you read nutrition labels?
- How often do you read labels on meat and poultry products?

Topic 3: Why do you read nutrition labels (15 mins)

- Do you read labels to get an idea of how healthy the food is that you are eating?
- Do you read labels because you or someone in your household is on a restricted diet for medical reasons?
- Do you read labels to decide what food group to buy (e.g. meat/poultry or dairy or fruits/vegetables or cereals/grains)?
- Do you read labels to choose what food to buy within a food group (e.g. pork or chicken or beef)?
- Do you read labels to choose which type of preparation or cut to purchase (whole chickens or boneless, skinless breasts)?
- Do you read labels to decide which brand of that product to buy?

Topic 4: Inferences drawn by presence or absence of labels (10 mins)

Refer to overhead of similar labels, one with nutrition label and one without.

- If there were two similar products and one had a nutrition label and the other did not, what would be your perceptions of each product?
- Do you feel that one is more nutritious than the other?
- If their prices were the same, how would you choose between the nutrition labeled product and the unlabeled product?
- If the product with the nutrition label cost more than the product without the label (e.g. a nickel or dime or quarter more), what product would you choose?

III. Discuss label content (30 mins)

Topic 1: Nutrition information at different stage of preparation (15 mins)

Refer to the overheads with different information given for the fresh product as packaged and as prepared and ask each group member

- Do you think that packaged fresh meat products should have labels that contain nutrition information as packaged or as prepared?
- If you were given only two labeling choices, either as packaged/fresh or as prepared in a way that you do not usually perform, which one would you prefer?
- Do you think labels should give nutritional information for multiple types of preparation (fried, broiled, boiled, etc.)?
- Would the information be more useful if it were given "as prepared using recommended methods?"

Topic 2: Uniform descriptors (15 mins)

Refer to the various overheads and ask each group member.

- Assuming that all food products were labeled with uniform descriptors, would this be more helpful in understanding the nutrition information of products?
- What nutritional measures or descriptors are most important to you (e.g. fat content, sodium content)?
- Where do you perceive "lean" and "extra lean" to fit in relative to the other uniform descriptors?
- Are there any uniform descriptors that you find misleading or confusing?

IV. Wrap-up (5 mins)

TOTAL TIME: 1 hour, 35 mins.



APPENDIX D

PRE-SESSION QUESTIONNAIRE

ATTACHMENT A

Please answer the following questions.

- 1) When you are selecting any type of food at the grocery store, which factors are most important to you? **Please rank** the categories from 1 to 8, with 1 being the most important and 8 being the least.

brand recognition	_____
ease of preparation	_____
nutrition content	_____
nutrition info. provided	_____
packaging	_____
price	_____
recommended to me	_____
taste	_____

- 2) How many times in the last 30 days have you looked for nutrition labels on food of any kind while shopping at the grocery store ? **Circle one answer.**

none

once

2 or 3 times

more than 3 times

- 3) When is the last time you examined a nutrition label on a meat or poultry product, such as sausage, lunch meat, packaged dinners, or soup? **Circle one answer.**

within the past week

within the past month

more than 1 month, or never

If it has been more than one month since you last examined a nutrition label on a meat or poultry product, please go to question 9.

- 4) The last time you examined a nutrition label on a meat or poultry product, how did you use the information? **Check only one.**

_____ to help me decide how to prepare a balanced meal with meat and poultry along with other foods like fruits and vegetables, dairy products, grains and cereals

_____ to help me decide what kind of meat or poultry product to buy (for example beef or chicken or pork)

_____ to help me decide what type of a specific kind of meat or poultry product to buy (for example ground beef or steak or roast beef or beef franks)

_____ to help me decide what brand of franks or what brand of bacon to buy

_____ other reasons

- 5) In the last 30 days, have you used nutrition labels at least once to help you prepare a balanced meal of meat or poultry products along with other foods like fruits and vegetables, dairy products, and cereals and grains? **Circle one.**

yes

no

- 6) In the last 30 days, have you used nutrition labels to help you decide what kind of meat or poultry to buy (for example beef, or chicken, or pork)? **Circle one.**

yes

no

- 7) In the last 30 days, have you used nutrition labels to help you decide what cut or preparation of meat or poultry to buy (for example ground beef or roast beef or steak or beef franks)? **Circle one.**

yes

no

- 8) In the last 30 days, have you used nutrition labels to help you decide what brand of a specific product to buy (for example what brand of beef franks to buy, or what brand of bacon to buy)? **Circle one.**

yes

no

9) Are you aware that some meat and poultry products have nutrition labeling and others do not?

Circle one.

yes

no

10) Are you aware that some *brands* of the same meat and poultry products have nutrition labeling and other brands do not? Circle one.

yes

no

11) Do you generally assume that products with nutrition labels are any more or less nutritious than products without nutrition labels? Circle one.

yes

no

12) Have you ever decided not to buy a product because it lacked a nutrition label? Circle one.

yes

no

13) When deciding whether or not to buy a food item for the first time, how often do you read the item's nutrition label? Circle one.

never

sometimes

usually

always

14) Please rank the following descriptions in order of their perceived fat content.

Let 1 be lowest in fat and 4 be highest in fat.

extra lean

fat-free

lean

low fat

APPENDIX E

VISUAL AIDS



Turkey Ham

Nutrition Information

Portion Size	1 slice (28g)	Carbohydrate ..	less than 1g
Portions per Container	8	Fat.....	1g
Calories	35	Cholesterol.....	3g
Protein	5g		

Ingredients: Turkey thigh meat, water, sodium lactate, dextrose, salt, sodium phosphates, sodium erythorbate, sodium nitrite, flavorings.

Chunk Ham

INGREDIENTS: Ham (Cured with Water, Salt, Sugar, Sodium Phosphates, Sodium Erythorbate, Sodium Nitrite), Smoke Flavoring.

Juicy pieces of real ham you can flake and use just like tuna in sandwiches, salads, casseroles, spreads and hors-d'oeuvres.

Beefsteak Dinner

INFORMATION PANEL

NUTRITION INFORMATION		NUTRITION INFORMATION	
SERVING SIZE	PER SERVING	FAT	PER SERVING
SERVINGS PER CONTAINER	9 1/4 OZ.	POLYUNSATURATED FAT	9g
CALORIES	1	SATURATED FAT	1g
PROTEIN	270	CHOLESTEROL	3g
CARBOHYDRATE	16g	SODIUM	40mg
	30g		950mg

PERCENTAGE OF U.S. RECOMMENDED DAILY ALLOWANCE (U.S. RDA)

PROTEIN	25	RIBOFLAVIN	10
VITAMIN A	6	NIACIN	15
VITAMIN C	10	CALCIUM	4
THIAMINE	6	IRON	8

Ingredients: Cooked white rice, beef (marinated with up to 9% of a solution of water, corn oil, beef base, spices, sodium phosphates and lemon juice solids, dehydrated garlic), tomatoes, water, onions, corn, zucchini, green chilies (citric acid, salt, calcium chloride), red peppers, modified cornstarch, salt, corn oil, spices, butter, rendered beef fat, garlic, jalapeno peppers, hydrolyzed vegetable protein, monosodium glutamate, sugar, limes, chicken fat, dehydrated onions, xanthan gum, beet powder, caramel coloring, natural flavorings, dehydrated coffee, mono- and diglycerides, dried beef stock, turmeric.

\$2.05

Joe's Turkey

Cooked Sliced

8 oz.

Ingredients: Turkey, water, salt, soy protein concentrate, dextrose, sodium tripoly phosphate, hydrolyzed plant protein, monosodium glutamate, flavorings, sodium erythorbate, sodium nitrite.

NUTRITION INFORMATION PER SERVING

Serving Size1oz Protein5g
Servings per Pkg. ...8 Carbohydrate1g
Fat3g
Calories50 Sodium.....430mg

PERCENTAGE OF U.S. RECOMMENDED DAILY ALLOWANCE (U.S. RDA)

Protein.....10 Riboflavin.....2
Vitamin A0 Niacin.....6
Vitamin C0 Calcium.....4
Thiamine0 Iron.....2

Somewhere, MN

\$1.99

Mike's Turkey

Cooked Sliced

8 oz.

Ingredients: Turkey, water, salt, soy protein concentrate, dextrose, sodium tripoly phosphate, hydrolyzed plant protein, monosodium glutamate, flavorings, sodium erythorbate, sodium nitrite.

Sliced—

Cooked—

Anywhere, IA

\$3.49

Beefsteak Dinner

9¹/₄ oz.

Ingredients: Cooked white rice, Beef (Marinated with up to 9% of a Solution of Water, corn oil, beef base, spices, sodium phosphates and lemon juice solids, dehydrated garlic), tomatoes, water, onions, corn, zucchini.

NUTRITION INFORMATION

PER SERVING	
Serving Size.....	9 ¹ / ₄ oz
Servings per Pkg.	1
Calories.....	270
Protein	16g
Carbohydrate	30g
Fat	9g
Unsaturated Fat	1g
Saturated Fat	3g
Cholesterol	40mg
Sodium	950mg

PERCENTAGE OF U.S. RECOMMENDED DAILY ALLOWANCE (U.S. RDA)

Protein	25
Vitamin A	6
Vitamin C	10
Thiamine	6

Overthere, MI

\$2.99

Beefsteak Dinner

9¹/₄ oz.

Ingredients: Cooked white rice, Beef (Marinated with up to 9% of a Solution of Water, corn oil, beef base, spices, sodium phosphates and lemon juice solids, dehydrated garlic), tomatoes, water, onions, corn, zucchini.

Underthere, WI

\$8.99

The House of Johnson Young Turkey Breast

4 lbs.

Ingredients: Turkey, Turkey Broth, Salt.

NUTRITION INFORMATION PER SERVING

Serving Size4oz Protein.....12g
 Servings per Pkg...16 Carbohydrate.....1g
 Fat5g
 Calories120 Sodium.....430mg

PERCENTAGE OF U.S. RECOMMENDED DAILY ALLOWANCE (U.S. RDA)

Protein.....24 Riboflavin8
 Vitamin A0 Niacin.....24
 Vitamin C0 Calcium.....16
 Thiamine0 Iron8

Here, GA

\$7.99

The House of Johnson Young Turkey Breast

4 lbs.

Ingredients: Turkey, Turkey
Broth, Salt.

There, SC

Sam's

100% Ground Beef
16 OZ.

Nutrition Information (Uncooked)

Serving Size.....	4oz.
Servings per Container	4
Calories.....	351
Protein.....	19g
Carbohydrates	0g
Complex Carbohydrates	0g
Sugars.....	0g
Dietary Fiber	0g
Fat.....	30g
Calories from fat.....	270
Saturated fat	12g
Cholesterol.....	96mg
Sodium.....	77mg
Calcium.....	16.7% Daily Value
Iron.....	16.3% Daily Value

Anywhere, NC 27510
Sell by 12/20/91

Bill's

100% Ground Beef
16 OZ.

Nutrition Information After Broiling

Serving Size.....	3oz.
Servings per Container	4
Calories.....	246
Protein.....	20g
Carbohydrates.....	0g
Complex Carbohydrates	0g
Sugars.....	0g
Dietary Fiber	0g
Fat.....	20g
Calories from fat.....	184
Saturated fat	7g
Cholesterol.....	76mg
Sodium.....	70mg
Calcium.....	15.0% Daily Value
Iron.....	17.3% Daily Value

Somewhere, AL 40028
Sell by 12/20/91

Uniform Descriptors Absolute

Extra Lean

Fat-Free

Lean

Low Fat

Uniform Descriptors

Absolute

Fat-Free: product contains less than 0.5 grams of fat per reference amount and serving size and no added ingredient that is fat or oil.

Low Fat: product contains 3 grams or less of fat per reference amount, per serving size, and per 100 grams of product.

Extra Lean: meat or poultry products with less than 4.9 grams of fat, less than 1.8 grams of saturated fat, and less than 0.0945 grams of cholesterol per 100 grams.

Lean: meat or poultry products with less than 10.5 grams of fat, and less than 0.0945 grams of cholesterol per 100 grams.

Uniform Descriptors Relative

Less Fat

Light (or Lite)

% Fat-Free

Reduced Fat

Uniform Descriptors Relative

Less Fat: product contains at least 25% less fat, with a minimum reduction of more than 3 grams per reference amount and per serving size.

Light (or Lite) product has at least a 1/3 reduction in the number of calories compared to a reference food, with a minimum reduction of more than 40 calories per reference amount and per serving size; and if the product derives more than 50% of its calories from fat, its fat content is reduced by 50% or more compared to the reference food, with a minimum reduction of more than 3 grams per reference amount and per serving size.

% Fat-Free (at least): only used on products that meet low fat definition (3 grams or less of fat per 100 grams) and exact amount of total fat per serving is disclosed.

Reduced Fat: product has reduced fat content by 50% or more, with a minimum reduction of more than 3 grams per reference amount and per serving size.

Journal of the American Medical Association

PUBLISHED WEEKLY
Subscription price, \$5.00 per annum in advance

Volume 100
Number 1
January 1958

CONTENTS
Original Articles
The Role of the General Practitioner in the Management of the Patient with a Heart Attack

Editorial
The Role of the General Practitioner in the Management of the Patient with a Heart Attack

Editorial
The Role of the General Practitioner in the Management of the Patient with a Heart Attack

Editorial
The Role of the General Practitioner in the Management of the Patient with a Heart Attack

Editorial
The Role of the General Practitioner in the Management of the Patient with a Heart Attack

Editorial
The Role of the General Practitioner in the Management of the Patient with a Heart Attack

Editorial
The Role of the General Practitioner in the Management of the Patient with a Heart Attack

Editorial
The Role of the General Practitioner in the Management of the Patient with a Heart Attack

APPENDIX F

PRE-SESSION DATA BASE

Question 1. Factors in selecting type of food, ranked in order of importance (from 1-8)

City	Group	Brand Recognition	Ease of Preparation	Nutrition Content	Nutrition Info. Provided	Packaging	Price	Recommended To Me	Taste
STL	1	6	2	4	5	7	1	8	3
STL	1	8	3	4	5	7	1	6	2
STL	1	8	2	3	4	1	6	5	7
STL	1	7	6	2	5	8	1	3	4
STL	1	5	3	4	7	6	2	8	1
STL	1	6	2	7	8	5	4	3	1
STL	1	7	6	2	4	5	3	8	1
STL	1	5	4	7	6	3	1	8	2
STL	1	6	7	3	4	8	1	5	2
STL	1	6	7	3	4	8	2	5	1
STL	2	NA	NA	NA	NA	NA	NA	NA	NA
STL	2	5	3	2	6	8	1	7	4
STL	2	1	5	6	7	4	2	8	3
STL	2	8	3	6	4	6	2	2	6
STL	2	3	4	5	2	6	8	7	1
STL	2	4	3	5	6	8	1	7	2
STL	2	7	6	1	4	3	2	8	5
STL	2	1	5	7	6	8	2	4	3
STL	2	3	7	1	2	4	5	8	6
STL	2	2	4	5	7	8	3	6	1
STL	3	5	3	4	7	6	1	8	2
STL	3	6	2	3	5	7	1	8	4
STL	3	8	7	1	2	5	3	4	6
STL	3	4	6	5	3	7	8	2	1
STL	3	1	3	5	6	7	8	2	4
STL	3	8	4	2	5	7	1	6	3
STL	3	7	6	1	2	5	4	8	3
STL	3	7	6	3	5	4	2	8	1
STL	3	4	6	2	3	5	7	8	1
STL	3	3	1	5	4	8	2	6	7
ATL	1	NA	NA	NA	NA	NA	NA	NA	NA
ATL	1	2	3	5	6	8	4	7	1
ATL	1	3	4	5	6	7	1	8	2
ATL	1	7	4	2	3	6	5	8	1
ATL	1	8	5	2	7	6	4	3	1
ATL	1	2	6	3	4	8	1	7	5
ATL	1	6	5	2	1	7	3	8	4
ATL	1	7	3	2	1	8	5	6	4
ATL	1	6	3	2	1	8	7	4	5
ATL	2	5	4	3	2	6	1	8	7
ATL	2	1	4	3	6	7	5	8	2
ATL	2	6	5	3	4	7	2	8	1
ATL	2	7	6	1	2	8	4	3	5
ATL	2	6	4	2	3	7	5	8	1
ATL	2	8	4	2	6	7	3	5	1
ATL	2	1	6	2	5	7	4	8	3
ATL	2	8	2	5	3	7	4	6	1
ATL	2	4	3	7	8	6	1	5	2
ATL	2	6	4	5	3	8	2	7	1
ATL	3	2	7	5	6	8	3	4	1
ATL	3	6	5	1	2	8	3	4	7
ATL	3	7	4	2	3	6	5	8	1
ATL	3	5	3	4	6	7	2	8	1
ATL	3	6	7	2	1	4	3	8	5
ATL	3	8	3	2	4	5	1	7	6
ATL	3	3	4	6	5	7	1	8	2
ATL	3	5	6	1	2	7	4	8	3
ATL	3	NA	NA	NA	NA	NA	NA	NA	NA
ATL	3	NA	NA	NA	NA	NA	NA	NA	NA

NA: Not Answered

STL: St. Louis

ATL: Atlanta

Questions 2 & 3. Number of times looked at nutrition label on any food in past 30 days, and last time looked at a meat or poultry label

CITY	GROUP	Q2	Q3
STL	1	0	0
STL	1	1	0
STL	1	2	0
STL	1	2	2
STL	1	3	2
STL	1	2	0
STL	1	3	2
STL	1	1	1
STL	1	2	1
STL	1	3	2
STL	2	2	1
STL	2	1	0
STL	2	1	2
STL	2	2	1
STL	2	3	2
STL	2	2	2
STL	2	3	2
STL	2	3	1
STL	2	3	2
STL	2	3	2
STL	3	3	2
STL	3	2	0
STL	3	3	2
STL	3	2	1
STL	3	2	1
STL	3	3	1
STL	3	3	2
STL	3	3	1
STL	3	3	2
STL	3	3	2
STL	3	3	2
ATL	1	2	2
ATL	1	3	2
ATL	1	2	1
ATL	1	3	2
ATL	1	2	1
ATL	1	2	2
ATL	1	3	1
ATL	1	3	2
ATL	1	3	2
ATL	2	2	2
ATL	2	2	1
ATL	2	3	2
ATL	2	3	2
ATL	2	3	2
ATL	2	3	2
ATL	2	3	1
ATL	2	2	1
ATL	2	3	2
ATL	2	3	2
ATL	2	3	2
ATL	2	1	1
ATL	2	3	2
ATL	3	2	2
ATL	3	1	1
ATL	3	2	1
ATL	3	2	1
ATL	3	2	1
ATL	3	3	2
ATL	3	3	0
ATL	3	3	1
ATL	3	3	2
ATL	3	3	1

CODE	Q2	Q3
0	NONE	NEVER OR >1 MO.
1	ONCE	DURING MO.
2	TWO OR THREE	DURING WEEK
3	MORE THAN 3	

Questions 4-13

CITY	GROUP	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13
STL	1	NA	NA	NA	NA	NA	0	0	1	0	1
STL	1	NA	NA	NA	NA	NA	0	0	1	0	1
STL	1	NA	NA	NA	NA	NA	1	1	1	0	1
STL	1	1	1	0	0	1	1	1	1	0	1
STL	1	3	0	0	1	1	1	1	0	0	2
STL	1	NA	NA	NA	NA	NA	0	0	1	0	1
STL	1	3	1	1	0	1	1	1	0	1	3
STL	1	3	0	1	1	1	1	1	0	0	1
STL	1	1	0	1	0	1	1	0	0	0	2
STL	1	4	0	0	0	0	1	0	1	0	1
STL	2	2	1	0	1	1	0	1	1	0	2
STL	2	NA	NA	NA	NA	NA	0	0	0	0	0
STL	2	3	0	1	1	1	1	1	0	0	1
STL	2	1	0	1	1	1	1	0	0	0	2
STL	2	4	0	1	1	1	1	1	1	1	3
STL	2	4	0	0	0	1	0	0	0	0	2
STL	2	2	0	0	1	1	1	1	1	0	3
STL	2	1	0	1	0	0	1	1	0	0	2
STL	2	1	1	1	0	0	1	1	1	1	3
STL	2	2	1	0	1	1	1	0	0	0	3
STL	3	3	0	1	1	0	1	1	0	0	1
STL	3	NA	NA	NA	NA	NA	1	NA	0	0	1
STL	3	2	0	0	1	1	1	1	0	0	2
STL	3	2	0	0	1	0	1	0	1	0	1
STL	3	NA	NA	NA	NA	NA	1	1	0	0	1
STL	3	2	0	0	1	1	1	1	0	0	3
STL	3	4	1	1	0	1	1	1	0	1	3
STL	3	3	0	0	0	1	1	0	0	0	2
STL	3	3	0	0	1	1	1	0	0	0	1
STL	3	4	1	1	0	0	1	1	0	0	2
ATL	1	1	0	1	1	1	1	1	0	0	2
ATL	1	2	1	1	1	1	1	1	1	0	3
ATL	1	3	0	1	1	1	1	1	1	1	2
ATL	1	1	1	1	0	1	1	1	0	0	2
ATL	1	3	0	1	0	1	1	1	1	1	2
ATL	1	2	1	1	1	1	1	1	1	0	1
ATL	1	4	1	0	0	0	1	1	1	1	3
ATL	1	0	1	1	1	1	1	0	1	1	2
ATL	1	1	1	1	1	1	1	1	1	1	2
ATL	2	1	0	0	1	1	1	1	0	0	2
ATL	2	1	1	1	0	1	1	0	1	0	1
ATL	2	3	1	1	1	1	1	1	0	1	3
ATL	2	1	1	1	1	1	1	0	1	1	3
ATL	2	4	0	0	0	0	1	0	0	1	3
ATL	2	3	1	1	1	1	1	0	1	0	2
ATL	2	3	0	1	1	1	1	1	1	0	1
ATL	2	4	1	0	0	0	1	1	1	1	3
ATL	2	2	0	0	0	1	1	0	1	0	1
ATL	2	4	0	0	0	0	0	0	0	1	2
ATL	3	3	0	1	0	1	1	0	1	0	3
ATL	3	4	0	0	1	0	0	0	1	1	2
ATL	3	4	0	0	0	0	1	1	0	0	1
ATL	3	4	1	0	0	0	1	0	1	0	2
ATL	3	1	0	1	0	1	1	0	0	0	3
ATL	3	2	0	1	1	1	1	1	0	1	1
ATL	3	NA	NA	NA	NA	NA	1	1	0	1	2
ATL	3	4	0	1	1	1	1	1	1	0	2
ATL	3	2	1	1	1	1	1	1	0	1	1
ATL	3	1	1	1	1	0	0	0	0	0	1

[illegible]

Question 14: Ranked extra lean, fat-free, lean, and low fat in order of fat content

CITY	GROUP	EXTRA LEAN	FAT-FREE	LEAN	LOW FAT
STL	1	3	1	4	2
STL	1	2	1	4	3
STL	1	2	1	3	4
STL	1	1	3	2	4
STL	1	2	1	4	3
STL	1	3	1	4	2
STL	1	2	1	3	4
STL	1	1	3	2	4
STL	1	3	1	4	2
STL	1	3	1	4	2
STL	2	NA	NA	NA	NA
STL	2	3	1	4	2
STL	2	3	2	1	4
STL	2	2	1	3	4
STL	2	3	1	4	2
STL	2	3	1	4	2
STL	2	2	1	4	3
STL	2	3	1	4	2
STL	2	3	1	4	2
STL	2	2	1	3	4
STL	2	2	1	3	4
STL	3	NA	NA	NA	NA
STL	3	2	1	3	4
STL	3	4	1	3	2
STL	3	4	1	3	2
STL	3	3	1	4	2
STL	3	2	1	3	4
STL	3	2	1	3	4
STL	3	4	1	3	2
STL	3	3	1	2	4
ATL	1	NA	NA	NA	NA
ATL	1	2	1	4	3
ATL	1	3	1	4	2
ATL	1	2	1	3	4
ATL	1	2	1	3	4
ATL	1	4	3	2	1
ATL	1	3	1	4	2
ATL	1	3	1	4	2
ATL	1	4	1	3	2
ATL	2	2	1	3	4
ATL	2	3	1	4	2
ATL	2	2	1	3	4
ATL	2	2	1	4	3
ATL	2	3	1	4	2
ATL	2	3	1	4	2
ATL	2	1	3	2	4
ATL	2	2	1	4	3
ATL	2	1	3	2	4
ATL	2	3	1	4	2
ATL	3	2	1	4	3
ATL	3	1	4	2	3
ATL	3	4	1	2	3
ATL	3	3	1	4	2
ATL	3	2	1	3	4
ATL	3	3	1	4	2
ATL	3	2	1	3	4
ATL	3	1	3	2	4
ATL	3	4	1	3	2
ATL	3	4	1	3	2

CODE	Q14
1	LOWEST FAT
2	SECOND-LOWEST
3	THIRD-LOWEST
4	HIGHEST-FAT



NATIONAL AGRICULTURAL LIBRARY

1022445625